

Group and Private Organizations: G

Letter - G1. Signatory -Redwood Sciences Lab.

Response to Comment G1-1

See Master Response 7. Further, the Plan does provide protection for headwall swales as described in AHCP/CCAA Sections 6.2.2.2 and 6.3.2.4. In addition, the author of the comment presumes that the limiting factor for all or most of the HPAs is related to headwater tributaries. However, Green Diamond's data indicate that LWD recruitment and sediment delivery from roads are most likely the limiting factors in most of the HPAs (see AHCP/CCAA Section 7). The conservation measures outlined in AHCP/CCAA Sections 6.2.1 through 6.2.4 are specifically designed to address these factors. Therefore, the Services believe that implementation of the Operating Conservation Program will protect critical habitat for salmonids, and sensitive amphibians.

Response to Comment G1-2

As stated in Master Response 11, the Plan's biological goals and objectives, which guided the development of the measures included in the Operating Conservation Program, are based on meeting the habitat requirements and life cycles of the covered species. One of the specific goals includes maintenance of cool water temperature regimes. Based on this goal, the yellow-light and red light temperature threshold monitoring and response system is expected to trigger different levels of review and response when stream temperatures exceed those suitable for juvenile coho salmon. Also see response to Comment F1-2.

Swift, Richard/SAC

From: Amedee_A_Brickey@r1.fws.gov
Sent: September 16, 2002 8:25 AM
To: Swift, Richard/SAC
Subject: Comments on Simpson HCP

Rick,

Please include this email as a public comment on the Simpson Project.

----- Forwarded by Amedee Brickey/AFWO/R1/FWS/DOI on 09/16/2002 08:24 AM -----

Gary Falxa
Brickey/AFWO/R1/FWS/DOI@FWS, James.F.Bond@noaa.gov
09/12/2002 11:08 AM
To: Amedee
cc: hwelsh@fs.fed.us
Subject: Comments on Simpson HCP

Amedee and JB,
See Hart Welsh's comments below. Could you please forward these to whoever is handling comments received on the Simpson HCP/CCAA, if its not yourselves. I'm guessing its you, as you're listed as the contacts in the federal register notice. Thanks. ..gary

----- Forwarded by Gary Falxa/AFWO/R1/FWS/DOI on 09/12/2002 11:05 AM -----

"Hart
Welsh/PSW/USDAFS
"
<hwelsh@fs.fed.us>
<hwelsh@fs.fed.us>
s>
09/12/2002 10:47 AM
To: Gary_Falxa@r1.fws.gov
cc: "Hart Welsh/PSW/USDAFS"
Subject: Pending Simpson HCP

G1-1 [Gary:
I am sending these comments to you in hopes that you will forward them to the appropriate persons. I have not reviewed the entire Simpson HCP but have looked at its objectives. If the HCP does not provide protections beyond what is required by California Forest Practice Act rules for headwater tributaries (including zero order basins or headwall areas) it will fail to adequately protect the critical habitats of coho salmon, other salmonids, and sensitive amphibians like the tailed frog and southern torrent salamanders (see Welsh, H. 2000. Aquatic ecosystems of the redwood region, Pp. 165-199; and California forest management and aquatic/riparian ecosystems in the redwoods, Pp 255-261; both in R. Noss, ed. The redwood forest: history, ecology, and conservation of the coast redwoods. Island Press, Covelo, CA. Also see relevant discussion in Welsh and Lind. 2002. Multiscale habitat relationships of stream amphibians in the Klamath-Siskiyou region of California and Journal of Wildlife
G1-2 [66:581-602. On a second issue, that of the percent of basin data-based predictive models from our research in the Mattole indicate that for as with interior climatic conditions, removal of more than 20% of the forest

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G1-2

cover at any one time will cause the stream temperatures to exceed those suitable for juvenile coho salmon (temperature threshold based on a recent field study of this species [Welsh et al. 2001. Distribution of juvenile coho salmon in relation to water temperatures in tributaries of the Mattole River, California. North American Journal of Fisheries Management 21:464-470]). I hope these comments are helpful. If you have any questions please give me a call.

Hartwell H. Welsh, Jr.
Redwood Sciences Lab
1700 Bayview Drive
Arcata, CA 95521
phone: (707)-825-2956
fax: (707)-825-2901
email: hwelsh@fs.fed.us <http://www.rsl.psw.fs.fed.us/projects/wild/herpwebpage>

Letter - G2. Signatory -California Indian
Basketweavers Association.

11/12/2002 11:40 AM FROM: Fax TO: 8228411 PAGE: 001 OF 008

F A X

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Nat'l Marine Fisheries SVC
Arcata, CA

To: **Ms. Amedee Brickey; Mr. James Bond**
Fax number: 8228411

From: **Jennifer Kalt**
Fax number:
Business phone:
Home phone:

Date & Time: 11/12/2002 11:40:49 AM
Pages: 8
Re: Simpson AHCP/CCAA/DEIS comments

Ms. Brickey, Mr. Bond:

Please submit these comments to the administrative record for Simpson's AHCP/CCAA/DEIS for
Humboldt and Del Norte Counties. Thank you,
Jennifer Kalt

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Response to Comment G2-1

Although LWD surveys have not been done in these tributaries, most of the streams have been assessed as part of amphibian surveys. See AHCP/CCAA Section 4.3.11. Many of these streams are high gradient, boulder and bedrock dominated channels. The pertinent literature suggests that LWD plays a lesser role in these channel types.

Response to Comment G2-2

See Master Response 4.



▲ California Indian Basketweavers Association ▲

November 11, 2002

Ms. Amedee Brickey
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Arcata, CA 95521

Mr. James Bond
National Marine Fisheries Service
1655 Heindon Rd.
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Re: Simpson Resource Company Aquatic Habitat Conservation Plan/Candidate Conservation Agreement with Assurances and Draft Environmental Impact Statement, Del Norte and Humboldt Counties, California

The California Indian Basketweavers Association (CIBA) is a state-wide, intertribal non-profit organization with over 900 members. CIBA's primary mission is to preserve, promote, and perpetuate California Indian basketweaving traditions while providing a healthy physical, social, spiritual, and economic environment for weavers. Our Resource Protection Program works to protect the native flora and fauna that Native people rely on for subsistence, and to promote alternatives to pesticides wherever possible, particularly in the vicinity of Native communities.

Our Northwestern Field Office serves over 250 basketweavers, and works to protect them and their families from health risks associated with pesticide use near their homes and gathering sites. Under a grant from the U.S. Environmental Protection Agency, we researched pesticide use, water quality, and risks of contamination in Native American communities. We found that Simpson's forestry herbicide use on and adjacent to the Yurok Reservation poses potential risks to Native people who hunt and fish on the reservation. Forestry herbicide use on and adjacent to the reservation also puts drinking water sources at risk of contamination.

Failure to Address Impacts of Forestry Herbicide Use

The Aquatic Habitat Conservation Plan/Candidate Conservation Agreement with Assurances (AHCP/CCAA) and Draft Environmental Impact Statement (DEIS) proposed by Simpson Resource Company (Simpson) for its timberlands

G2-1

G2-2

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Response to Comment G2-3

The analysis in the EIS considers impacts (individual and cumulative) associated with the Covered Activities associated with the Proposed Action, which is issuance of a Federal ITP and ESP. Green Diamond has not proposed to include herbicide use as a covered activity (see AHCP/CCAA Section 2.4.3), nor are the Services authorized to require its inclusion. However, comments regarding herbicide use have been addressed in Master Response 4.

Response to Comment G2-4

As noted above, Green Diamond has not proposed to include herbicide use as a covered activity and the Services are not authorized to require its inclusion. Herbicide use in the forestry context, including cumulative effects, has been discussed in Master Response 4.

in Del Norte and Humboldt Counties, California does not adequately assess impacts of timber operations to the species addressed in the proposal because it fails to consider direct and cumulative impacts of forestry herbicide use which is an integral part of Simpson's timber operations in the region. Activities proposed for coverage under the AHCP/CCAA include all aspects of timber harvest; site preparation; and tree planting. Forestry herbicide use is an integral part of these activities under Simpson's current management practices and should be considered a covered activity under the AHCP/CCAA. The Proposed Action states that control of existing unwanted vegetation may be facilitated through use of contact and translocated herbicides (page 2-4). Chemical treatment of competing vegetation would generally be initiated at the end of the second growing season after timber harvest, and would continue until the stand is approximately 35 years of age (page 2-5). Repeated herbicide application as described is sure to have significant negative impacts on public resources in the forest environment, and should not be ignored in the Proposed Action.

The Proposed Action appears to dismiss requirements for assessment of herbicide-related impacts by stating that the herbicides and adjuvants used would continue to be registered with the EPA. Although the pesticide regulatory program is a certified program under 14 Cal. Code Reg. § 15251 (i), no agency has taken responsibility for ensuring that sensitive species are protected from significant direct or cumulative impacts due to herbicide use. The majority of herbicide use on private timberlands in Humboldt County is conducted without any permit or review of local conditions and resources that could be impacted. Protecting sensitive species from impacts due to logging operations is not enough to ensure their survival if site preparation activities such as herbicide use are done without considering their impacts.

The U.S. EPA's settlement in a recent court case indicates that there are potentially significant negative impacts to listed plants and animals not considered in the pesticide registration process due to the EPA's failure to consult with the U.S. Fish & Wildlife Service prior to pesticide registration. Further evidence that the EPA and DPR registration processes are inadequate to protect sensitive species has been shown in studies of avian reproduction, in which it was shown that 13 of 17 pesticides examined were found to cause statistically significant impacts to reproduction at levels that did not cause parental toxicity.¹ These authors concluded that at least 10 of the pesticides examined should not have been registered without some assurance that these developmental effects would not occur in the wild.

The registration review process is a different project than a THP, and a different project than herbicide use on a THP; thus it cannot substitute for environmental review of forestry herbicide use. Furthermore, there is no evidence that the registration review process considers site specific impacts to public resources. The Proposed Action's wholesale reliance on the pesticide registration process for assessing impacts on these THPs is unlawful for several reasons.

First, it is well settled that compliance with law alone is insufficient to find "no significant impact" under CEQA. See e.g., *Oro Fino Gold Mining Corporation v. County of El Dorado* (1990) 225 Cal. App. 3d 872, 881-882 (rejects contention that project noise level would be insignificant simply by being consistent with general plan standards for the zone in question.) The Forest Practice Act's and CEQA's requirement to assess environmental impacts assumes that the project applicant will comply with the law, but that adverse environmental impacts may still occur. Simpson cannot plausibly argue that herbicide applications in compliance with label directions have no potential for significant environmental impacts when introduced into the forest environment.

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Response to Comment G2-5

Comment noted. However, the CEQA (Cal. Pub. Res. Code Section 21000 et seq.; 14 Cal. Code Regs. Section 15000-15387) does not govern preparation of the EIS, approval of the Plan or issuance of the Permits and no State-issued approval is sought that would trigger CEQA review of this Plan.

Response to Comment G2-6

See Master Response 4.

Response to Comment G2-7

The Plan is subject to review and approval under the Federal ESA and NEPA. Therefore, issues related to CEQA are not pertinent to the analysis here. Of course, regardless of whether the Plan and Permits are approved or not, Green Diamond's THPs will be subject to all applicable laws, including CEQA. The Plan and Permits add a layer of regulation, and do not relieve the applicant of any regulatory or other legal responsibility (see Master Response 4).

Response to Comment G2-8

The impacts of timber operations and other covered activities on the Plan Area are analyzed in the Plan, as are the impacts of incidental take. See Master Response 4 regarding herbicide use in the Plan Area, Master Response 3 regarding cumulative effects and Master Response 1 regarding the September 2002 "die off" of fish in the Klamath River.

G2-5

Second, as a matter of CEQA law, here there is no question that the "project" approved by the pesticide agencies - the general registration of a pesticide product for use - is separate and distinct from the specific introduction by Simpson of potentially contaminating forestry herbicides into the environment of the North Coast coniferous forests. See 14 Cal. Code Reg. § 15253(a) ("environmental analysis document prepared for a project under a certified program...shall be used by another agency granting an approval for the same project...") (emphasis added).

G2-6

Third, Simpson has not produced any evidence showing that the registration review process specifically addressed the type of herbicide use and impacts proposed in this case. Neither the U.S.E.P.A. nor the state Department of Pesticide Regulation have assessed the short and long term impacts of forestry herbicides on forest ecology, including understory species important to wildlife such as oaks and ceanothus. The registration process did not take into account the specific uses of herbicides on these plans, including the time of application, the amounts, the chemical used, the terrain, the specific potential for surface water contamination given the soil type and slope, the application method, or the specific environmental resources potentially at risk.

G2-7

According to the California Forest Practice Rules and CEQA, a "project" is defined as the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment (14 Cal. Code Reg. § 15378)(a) and 4 Cal. Code Reg. § 895.1). CEQA's definition of project goes on to explicitly state that "[t]he term 'project' refers to the activity which ...may be subject to several discretionary approvals by governmental agencies. The term 'project' does not mean each separate governmental approval." (14 Cal. Code Reg. § 15378(c)). THP submitters may not avoid CEQA review of impacts due to herbicide use simply by refusing to commit to the use of herbicides until after the plan is approved. In deferring the herbicide issue to a later date, the project is segmented into two pieces, which is not lawful under CEQA, since the cumulative impacts of the two parts of the project will not adequately be considered.

Potential for Impacts to Aquatic Species

G2-8

Forestry herbicide use, as well as increased sediment delivery to watercourses related to covered activities under the Proposed Action, have the potential to cause significant negative impacts to anadromous fish and other aquatic species that local Native people depend on as a major portion of their diet. Many culturally important and ecologically sensitive fish occur in the Lower Klamath River. Since Simpson owns and manages more than 85% of the land upslope from the Lower Klamath River, Simpson's land management practices have a tremendous impact on the health of these populations, and by extension, on the health of the cultures of the Native American communities in the area.

Simpson's management activities have direct and cumulative impacts on these aquatic species and their habitat. These fish populations may have been severely impacted by the massive fish kill on the Lower Klamath River in recent months; it is unknown at this time what the long-term impacts to these species will be, but it is known that over 30,000 chinook and coho salmon died before spawning. The Yurok, Karuk, Hupa and Tsunungwe tribes depend on these fish for subsistence as well as cultural continuity. These fish cannot sustain additional impacts after the massive damage to their future generations that was apparently caused by combination of low water levels, high water temperatures, pesticide contamination, and sedimentation caused by logging, and erosion from poorly-maintained roads and culverts.

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Response to Comment G2-9

Comments relating to herbicide use have been addressed in Master Response 4.

Response to Comment G2-10

AHCP/CCAA (Section 6.3.2.4.1) requires Green Diamond to use a q/t value of -2.8, based on the preliminary calibrative work by Deitrich. That calibrative work did include two watersheds from the Korbel HPA Group. The Services recognize that a SHALSTAB calibration study was not performed specifically for the Plan and that a greater log q/t value would capture a greater percentage of the landscape and therefore landslide occurrences as well. However the cost/benefit of requiring a greater log q/t value compared to that for other possible conservation measures, such as roads, was inefficient and discouraging for both the Services and Green Diamond. Rather, the Plan proposes the "off-the-shelf" use of SHALSTAB in conjunction with a suite of other conservation measures for hillslope stability and other potential sediment sources such as roads and harvest related ground disturbance. See, e.g., AHCP/CCAA Sections 6.2.3 and 6.2.4. The relative importance of the SHALSTAB model must be considered in that context of the Operating Conservation Program as a whole. The percent of the watershed in SHALSTAB areas and the sediment contribution from SHALSTAB areas for the pilot watersheds are modeled and summarized in AHCP/CCAA Appendix F3 and Tables F3-3, F3-4, and F3-5.

Regardless of the specific log q/t value, the Plan does not propose any specific or enforceable capture rate of landslide occurrences.

Triclopyr butoxyethyl ester, (tradename Garlon 4), is highly toxic to many fish species, including coho salmon.ⁱⁱ This species was listed as federally threatened in 1997, and in 2000, the National Marine Fisheries Service stated in its 4(d) Rules for Pacific Salmon that concentrations of pesticides may affect salmonid behavior and reproductive success. Current EPA label requirements were developed in the absence of information about some of these subtle but real impacts on aquatic species such as salmonids.ⁱⁱⁱ According to an unreleased study by the U.S. EPA's Region X, the average 70-year-old Native American in the Pacific Northwest has 50 times the cancer risk of non-Native residents of the region due to the high rate of fish consumption by tribal people, combined with the high levels of toxic chemicals found in fish tissue.^{iv}

The Department of Pesticide Regulation has found triclopyr contamination in one-third of samples taken after aerial spraying by Simpson Timber Company in the Klamath watershed, indicating that the chemical does contaminate surface waters.^v Although triclopyr is the most abundantly used forestry herbicide in Humboldt County—more than 15,000 pounds were sprayed on private timberlands in 1999 alone^{vi}—potential impacts of these applications to salmon and other aquatic species are not assessed by any agency, even though the evidence indicates the potential for harm exists. Triclopyr is highly toxic to fish in its ester form and is known to be highly toxic to coho salmon, according to the EPA's 1998 reregistration eligibility decision for triclopyr.ⁱⁱ Given this information, we believe that the potential impacts of triclopyr to damage aquatic species, domestic water supplies, and other public resources should be included in any assessment of impact of timber harvest and management.

Herbicide use following clearcutting and other types of even-aged management has been shown to have the potential to contaminate deer meat, another major component of the diet of many Yurok, Karuk, Hupa and Tsunungwe people. According to research conducted in Oregon, glyphosate residues in deer meat were detected at levels higher than EPA limits for meat for more than 25 days.ⁱⁱⁱ Residues of TCP, the metabolite of triclopyr (Garlon 4®), has been found in meat, meat byproducts and fat.ⁱ Deer hunting is quite common on the U.S. Forest Service lands and private lands adjacent to the timberlands managed by Simpson. It is not unlikely that deer could move from sprayed areas to unsprayed areas, where an unsuspected hunter could kill and eat highly contaminated meat.

In addition to concerns for fish and deer, and human consumption of contaminated meat, we also have concerns for plant residues that remain in berries and other plant tissues consumed by people and wildlife. The Department of Pesticide Regulation found that herbicide residues can remain in plant tissues for as long as 80 weeks,^{viii} yet impacts to those that consume contaminated plants have not been addressed.

Tanoaks are the primary target for many forestry herbicide spray applications, particularly when spraying occurs in preparation for a THP or in the silvicultural method termed regeneration or rehabilitation. We have serious concerns over the killing of tanoaks due to its importance as a subsistence food for Native California tribes, and also as a major food source for deer, elk, and other wildlife. The increasing threat of Sudden Oak Death only deepens our concerns, since the disease has been discovered in Humboldt County and is now known to infect more than twenty native plant species, including redwood and Douglas-fir.

Simpson also practices prairie conversion, in which prairies and oak woodlands are sprayed, plowed, and planted with conifer seedlings. Prairies and oak woodlands are known to be in decline statewide due

SHALSTAB is proposed merely as a screening tool to trigger specific field verification for headwall swale landforms by Green Diamond staff. SHALSTAB itself cannot identify headwall swales. Headwall swales can only be identified by direct observation. Headwall swale features outside SHALSTAB areas may be identified and protected as well (AHCP/CCAA Section 6.3.4.2.1). It is likely that most headwall swale type landforms in the Plan Area will be identified and managed accordingly since the entire Plan Area, including both inside and outside SHALSTAB areas, will incrementally be evaluated in the field through THP process by appropriately trained personnel.

Response to Comment G2-11

Comments relating to herbicide use have been addressed in Master Response 4.

Response to Comment G2-12

Comment noted. However, no specific measures associated with health hazards from ultramafic rocks have been incorporated into the Plan.

Response to Comment G2-13

The area included in the Plan is primarily classified as commercial timberland. Included within the commercial timberlands are other associated land classifications such as rock quarries, roads, and prairies. The Services do not possess any information to suggest that the approval of the Permits result in prairie conversions.

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Response to Comment G2-14

See Master Response 4.

Response to Comment G2-15

See Master Response 8.2.

Response to Comment G2-16

See Master Response 4.

to fire suppression, and are essential habitats for many species of wildlife, including deer, elk, small mammals, and many birds including raptors, woodpeckers, eagles, and owls.

Although the pesticide regulatory program is a certified program under 14 Cal. Code Reg. § 15251 (i), no agency has taken responsibility for ensuring that native flora and fauna are protected from significant direct or cumulative impacts due to herbicide use. The majority of herbicide use on private timberlands in Humboldt County is conducted without any permit or review of local conditions and resources that could be impacted, including herbicide use by Simpson Timber Company.

Forestry Herbicides as Endocrine Disruptors

G2-14

Many forestry herbicide—including 2,4-D, glyphosate, and atrazine—are endocrine disrupting chemicals which have been linked to significant impacts on hormonal processes, including nitrogen fixation,^{ix} reproduction and behavior. Low levels of atrazine are suspected to be a factor in worldwide declines in amphibian populations, and these levels are realistic exposures that suggest that other amphibian species exposed to atrazine in the wild could be at risk of impaired sexual development.^x Certain chemicals can affect normal endocrine function and can substantially reduce some animal populations. According to the U.S. Environmental Protection Agency,

It has been reported that exposure to certain chlorotriazine herbicides (i.e., atrazine) will induce a persistent estrous condition in rats and that this condition is responsible for the early onset of mammary gland tumors in rats fed diets containing the chlorotriazines during the first year of life...[I]t is clear that atrazine, and apparently several other chlorotriazines, can disrupt ovarian function in the adult female rat and that an endocrine mechanism is involved.^{xi}

Endocrine disruptors have also been linked to human birth defects, changes in gender of babies born to pesticide applicators, and cancer.^{xii, xiii}

Yurok Tribe Domestic Water Sources

G2-15

Potential contamination of domestic water supplies is of concern for both Native and non-Native residents of the region, especially in rural areas where many people rely on drinking water from springs and streams originating in forested areas. Water monitoring studies in the Hupa and Karuk territories found no detectable pesticides. Monitoring in the Yurok territory, which has the highest pesticide use of the three territories due to surrounding land use and ownership, has found contamination in nearly two-thirds of samples taken after aerial spraying.^{iv} Furthermore, there is no established maximum contamination limit for triclopyr, even though the vast majority of Yurok tribal members rely on surface waters downslope from Simpson lands for domestic water supplies.

Concerns for Native American Subsistence and Traditions

G2-16

Many Native Americans in the region are at risk of exposure to pesticides in conjunction with subsistence activities. Traditional practices remain strong in indigenous communities in the region, and many Indian people rely heavily upon subsistence activities to sustain them. Local forests provide subsistence in the forms of food from both plant and animal sources, such as deer, fish, eel, berries, and acorns; medicinal herbs; and basketweaving materials, such as beargrass, hazel, willow, and ferns. For many, these native plants and animals not only provide a significant portion of their diet, but also

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Response to Comment G2-17

As discussed above with regard to CEQA, the CFPRs (14 Cal. Code Regs. Section 895 et seq.), including Technical Rule Addendum No. 2, do not govern preparation of the EIS, approval of the Plan or issuance of the Permits. As discussed in previous responses, herbicide use is not a Covered Activity. The Plan is subject to review and approval under the Federal ESA and NEPA. No State agency approvals are being sought in relation to this project. Therefore, issues related to the CFPRs are not pertinent to the analysis here. However, regardless of whether the Plan and Permits are approved or not, Green Diamond's THPs will be subject to all applicable laws, including CEQA. The Plan and Permits do not relieve the applicant of any other regulatory or legal responsibility.. See Master Response 4.

provide the means by which to perpetuate their cultural traditions. Few of the twelve tribes retain a land base sufficient to carry out their entire gathering needs, and therefore must rely upon their aboriginal gathering areas, now owned by public and private entities, which subject them to pesticides.

Subsistence gatherers are at risk of exposure to forestry herbicides and their breakdown products in several ways. Basketweavers can be exposed to herbicides while gathering and processing plant materials, since they use their teeth to strip bark and to hold the materials while weaving. Gathering of plant materials for food or medicinal use in areas that have been sprayed can also result in exposure to residues. Hunting near areas that have been sprayed can increase the risk of exposure, since deer can easily move from sprayed areas to adjacent lands.

Many of the plants targeted by herbicide spray programs are in fact native plants that are used by local Native Americans for food, basketweaving, and medicinal purposes, including tanoak, alder, and buckbrush. Many other native plants are sprayed even though they are not specifically targeted. Native American uses of these native plants and animals are not only essential to the material existence of local tribes, but they are also an essential part of the Native cultural traditions. Without salmon, deer, tanoak, basketweaving plants, and other forest species, the cultural traditions of California Indians would not be possible.

Cumulative Impacts Assessment

Since the potential for direct environmental effects to fish and deer populations related to herbicide use are not addressed in the proposed HCP, the cumulative impacts assessment required by the California Board of Forestry's Technical Rule Addendum No. 2 is inadequate. Furthermore, long-term effects of breakdown products and combinations of forestry herbicides and their "inert" ingredients have never been assessed in the environment in which these chemicals are applied.

CIBA requests that all agencies and Simpson add CIBA to the mailing list for all notices related to this proposal.

Please include this letter and all references cited herein into the administrative record for the Simpson Resource Company Aquatic Habitat Conservation Plan/Candidate Conservation Agreement with Assurances and Draft Environmental Impact Statement, Del Norte and Humboldt Counties, California.

Sincerely,

Jennifer Kalt
Resource Protection Associate
Northwestern Field Office

cc: Yurok Tribal Fisheries Department
Yurok Tribal Environmental Program
Karuk Department of Natural Resources
Karuk Tribal Fisheries Department

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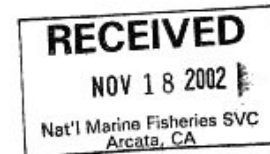
Hupa Tribal Fisheries Department
Tsnungwe Tribe
Californians for Alternatives to Toxics
California Department of Fish & Game
California Department of Pesticide Regulation
Environmental Protection Information Center
Humboldt Watershed Council
Klamath Forest Alliance
North Coast Regional Water Quality Control Board
North Coast Environmental Center

References:

- ⁱ Mineau, P., D.C. Boersma, and B. Collins. 1994. An Analysis of Avian Reproduction Studies Submitted for Pesticide Regulation. *Ecotoxicology and Environmental Safety* 29: 304-329.
- ⁱⁱ U.S. Environmental Protection Agency. Prevention, Pesticides, and Toxic Substances. 1998. Reregistration Eligibility Decision (RED): Triclopyr. Washington, D.C.
- ⁱⁱⁱ The ESA Proposed 4(d) Rules for Pacific Salmon. National Marine Fisheries Service, June 2000.
- ^{iv} U.S. EPA Region X, unreleased report cited by NewsChannel 8, Portland, OR. February 14, 2002.
- ^v Wofford, P. N. Bacey, and K.S. Goh. 2001. Surface Water Monitoring for Forestry Herbicides in the Yurok Aboriginal Territory of the Klamath River Watershed, Spring 2000.
- ^{vi} Department of Pesticide Regulation pesticide use database. Sacramento, CA.
- ^{vii} Payne, G. 1988. Pesticide residues in wildlife: Violating legal standards? *Journal of Pesticide Reform* 7: 18-19.
- ^{viii} Li, L.Y. 2002. Data Analysis of Forestry Herbicide Residues in Plants of Importance to California Tribes. Department of Pesticide Regulation. Sacramento, CA.
- ^{ix} Fox, J.E., M. Starcevis, K.Y. Kow, M.E. Burow, and J.A. McLachlan. Endocrine disruptors and flavinoid signalling. *Nature* 413: 128-129.
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Letter - G3. Signatory -American Lands Alliance.

November 12, 2002



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James F. Bond
National Marine Fisheries Service
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FR: Daniel Hall
Director, Forest Biodiversity Program
American Lands

RE: **Comments on the Simpson Resource Company's Draft Habitat Conservation Plan, Draft Candidate Conservation Agreement, Draft Implementation Agreement, and Draft Environmental Impact Statement for the North Coast of California**

CC: Senator Barbara Boxer
Senator Dianne Feinstein
Representative Mike Thompson

We are writing to provide input on the Simpson Resource Co's draft Habitat Conservation Plan (HCP), draft Candidate Conservation Agreement (CCA), draft Implementation Agreement, and draft Environmental Impact Statement (EIS), for the Company's property in the North Coast region of California.

American Lands works with conservation organizations and citizens nationwide to protect and recover our wildlife and wild places. Our Forest Biodiversity Program promotes improved resource conservation and restoration on non-federal forestlands in the west, including through research, education, and encouraging more effective public policies and market incentives.

The HCP is required as mitigation for Simpson's proposed Incidental Take Permit, which will allow the company to kill, harm, degrade, or otherwise "take" threatened and endangered species and their habitats. CCAs also appear intended to function as HCPs for species which are imperiled but as yet unlisted. In particular, CCAs appear designed to provide landowners with "no surprises" guarantees for such species. The "take" permits associated with CCAs are known as Enhancement of Survival Permits.

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Organizations listed for identification purposes only.

Response to Comment G3-1

Regarding the CFPRs, see Master Response 7. Regarding the criteria for issuance of ESA Section 10 permits, see Master Response 8. A detailed description of the differences between the Proposed Action, other alternatives and the No Action Alternative is presented in EIS Table 2.7-1. Examples of measures that exceed the requirements of the CFPRs and provide additional protection for the covered species include:

- Within the outer zone of the Class I & II RMZ, at least 70 percent overstory canopy would be retained, except for Class I RMZs located below slope SMZs where 75 percent overstory canopy closure would be retained.
- Within the RMZs of Class I watercourses and the first 200 feet of Class II water courses, no trees would be harvested that are judged likely to recruit to the watercourse.
- During the life of the Permit, only a single harvest entry would occur into an RMZ except when cable corridors through an RMZ are necessary to conduct intermediate treatments.
- Timber harvesting would be prohibited within all Class I and 2nd order or larger Class II RMZ inner zones that are located below SMZs (i.e., RSMZs) (see AHCP/CCAA Section 6.2.2.1, as further described in AHCP/CCAA Section 6.3.2.1), except for purposes of creating cable-tying corridors when other options are impractical. Retention of a minimum 85 percent overstory canopy closure would be required in Class I and 2nd order or larger Class II RSMZ outer zones. In addition, no timber harvesting would be allowed within the entire RSMZ in

There are some positive elements to Simpson's proposed HCP/CCA. However, given our time limitations, we will focus our comments on areas where the HCP/CCA and its associated documents need to be improved to meet core biological, policy, and legal goals and requirements for HCPs, CCAs, Incidental Take Permits, Enhancement of Survival Permits and, of course, imperiled species' recovery.

General Comments

We applaud Simpson for appearing to take the initiative to develop conservation measures for the covered species, i.e., chinook salmon, coast coho salmon, steelhead trout (which are listed as threatened), and cutthroat trout, rainbow trout, Southern torrent salamander, and tailed frog (which are currently unlisted). However, upon closer examination, it appears that the HCP/CCA's conservation measures barely expand upon those already required under the California Forest Practice Rules. These rules are widely known to be inadequate for the protection and recovery of the covered species. The HCP/CCA's conservation measures suffer from other problems discussed in detail below, including a failure to identify conservation measures needed for the covered species' recovery. Moreover, the HCP/CCA fails to utilize adequate monitoring and adaptive management, and along with the Implementation Agreement and its "no surprises" guarantees, is in fact designed primarily to preclude adaptive management and improvements to the HCP/CCA's conservation measures over time.

As discussed further below, there is reason to think at the outset that many of the HCP/CCA's prescriptions are inadequate to avoid significant impacts to the covered species, their chances of survival, and their chances of recovery. For example, the HCP/CCA contains no measures designed to specifically protect the covered amphibians from the negative effects of timber harvest and other permitted activities, and will not generally be providing the older forest habitats associated with these species. Even if the plan's initial measures were adequate, history and common sense show that it is unrealistic and irresponsible to expect that measures which appear sufficient or properly designed today will continue to be sufficient or exactly what is needed half a century into the future. During such a time frame, it is inevitable that significant changes will occur in environmental conditions, in our knowledge of species' conservation needs, in the conservation status of different species, in available impact mitigation measures, in Simpson's forest management practices, etc.

Theoretically at least, these shortcomings could be addressed by identifying desired biological outcomes, and then using monitoring and adaptive management to ensure they are achieved over time. However, the HCP/CCA fails to identify biological conditions and outcomes which correspond to survival or recovery for each of the covered species. The HCP/CCA and its Implementation Agreement also severely constrain any improvements or supplementation which can be required of the HCP/CCA's mitigation measures through adaptive management or other processes, regardless of whether these changes are needed to address known initial shortcomings with the plan, foreseeable changing circumstances,

the Coastal Klamath and Blue Creek HPAs.

- Inventory of the road network every five years to ensure that management roads that are no longer needed for log transport or administrative access are changed to decommission status.
- Treatment of road-related sediment sources over the entire ownership and front-loading treatment of high- and moderate-risk sediment delivery sites by providing additional funding during the first 15 years of the Plan with treatment of all high- and moderate-risk sediment delivery sites by the end of the Permit period.
- Development of a response plan to large storm events that could result in major sediment inputs to stream channels.

The Plan also includes a substantial monitoring effort that includes effectiveness monitoring, response monitoring, population monitoring of some covered species, and an experimental watershed program as set forth in Plan Sections 6.2.5 and 6.2.7 and further described in AHCP/CCAA Sections 6.3.5 and 6.3.7. Conservation measures in the AHCP/CCAA can be changed over time through adaptive management based on the results of this monitoring. See AHCP/CCAA Sections 6.2.6, 6.3.6 and, specifically regarding the “feedback loop” connecting the monitoring program and the adaptive management program, see AHCP/CCAA Section 6.3.5.1.2. A process identifying the triggering and application of adaptive management measures and use of the Adaptive Management Reserve Account (AMRA) is described in AHCP/CCAA Section 6.3.6. See Master Response 15 regarding the AMRA. See also Response to Comments G3-2 through G3-57, which respond to the commenter’s specific comments on the AHCP/CCAA conservation measures, and response to Comment G10-57 regarding comparative analysis with CFPRs.

Response to Comment G3-2

The ESA requires that a conservation plan, *as a whole*, meet the requirements discussed in Master Response 8. In other words, the ESA does not require each specific measure to avoid impacts to species and habitats, but that the effect of the suite of measures together will meet the ESA requirements to minimize and mitigate the impacts of take to the maximum extent practicable and ensure that permitted take will not appreciably reduce the likelihood of survival and recovery of the species

in the wild. The habitat requirements of the covered species, as presented in AHCP/CCAA Section 3, represent the requirements of a suite of “cold-water adapted species” that all are sensitive to excess sediment inputs and benefit in a variety of ways to increased levels of LWD. Many of the conservation measures, such as those to reduce sediment inputs into streams (see, for example, the slope stability and road management measures in AHCP/CCAA Section 6.2.2 and 6.2.3), will benefit all of the covered species. Other measures, such as the Class II and III conservation measures along with the headwall swale measures are primarily designed to protect the amphibian covered species. Under the Plan, the RMZs will mature in age and size. See response to G3-4 relating to the maturing of RMZs under the Plan. AHCP/CCAA Sections 6.2.5 and 6.2.6 outline the monitoring program and adaptive management requirements. Adaptation is not expected to be unlimited [see the Five Points Policy, 65 Fed. Reg. 35242 (June 1, 2000)].

Response to Comment G3-3

Comments regarding whether Green Diamond should be required to attain biological goals and objectives have been addressed in Master Comment 12.

Response to Comment G3-4

See Master Response 8 regarding the ESA Permit issuance criteria; Master Response 12 regarding biological goals; and Master Response 6 regarding the relationship of this Plan to other HCPs. NMFS believes that the Plan does use “best available technology” for minimizing or mitigating impacts as required by Title 50 of the Code of Federal Regulations section 222.307(c)(1)(iv). For example, the monitoring techniques are current and credible and the road management measures and road assessment methodologies, based on Weaver and Hagens (1994), are best practices.

See Master Response 19 regarding assurances for unlisted species. The Services believe the conservation measures, adaptive management measures and triggers are sufficient to meet the issuance criteria for both the ITP and ESP. The Services provide assurances to land owners in recognition of two fundamental points: 1) implementation could provide many benefits for covered species and their habitats, including early protection for unlisted species and possibly, prevention of the need to list such a species in the future; and 2) existing laws often provide insufficient incentives for non-Federal landowners to include species conservation in their day-to-day management activities.

G3-2

problems with the plan's measures which may not be foreseen, and other foreseen and unforeseen events and circumstances, even including changes in Simpson's forest management practices.

G3-3

The HCP/CCA itself begins to acknowledge this problem, inasmuch as the Implementation Agreement describes the HCP/CCA as “prescription-based” and as *not* being expected to meet concrete biological goals for the covered species. This statement reveals a serious internal contradiction in the HCP/CCA and related analyses and planning documents. On the one hand, the HCP/CCA and related documents claim that the HCP/CCA's conservation measures meet important conservation objectives for the covered species, and are sufficient to avoid “jeopardizing” their survival and recovery. On the other hand, the HCP/CCA is *not* required to actually produce concrete biological outcomes which correspond to the species' survival and recovery.

G3-4

Put another way, one cannot rationally expect the HCP/CCA to be sufficient over time to avoid significant impacts to the covered species' chances of survival, much less recovery, if the HCP/CCA does not identify biological outcomes which correspond to the species' survival and recovery, if one does not require the HCP/CCA to produce these outcomes at different time frames, and if one does not require changes to the HCP/CCA which may be needed if these objectives are not being met. Unfortunately, this HCP/CCA and its Implementation Agreement do none of these things. In fact, many elements of the HCP/CCA and its Implementation Agreement are clearly designed to *preclude* these things.

Thus the HCP/CCA fails to meet ESA section 10's issuance criteria for Incidental Take Permits that relate to species' survival and recovery. Quite simply, an HCP/CCA which is not expected to meet biological goals corresponding to the covered species' survival and recovery cannot be expected to avoid harming those species' chances of survival and recovery. Moreover, because the HCP/CCA fails to include basic components for a scientifically valid HCP/CCA -- biological goals that correspond to the covered species' survival and recovery, sound initial mitigation measures designed to achieve these goals, monitoring and adaptive management provisions which ensure that the goals will actually be met over time, and landowner “assurances” provisions which do *not* preclude adaptive management changes -- the HCP/CCA fails to meet section 10's other major issuance criteria: minimization and mitigation of the impacts of “take” to the “maximum extent practicable.” Similarly, the HCP/CCA fails to utilize the best available technology as required by the National Marine Fisheries Service's (NMFS') regulations for HCPs. It should also be noted that other HCPs for public and privately-owned commercial timberlands in the Western US *have* included some or all of these basic components.

It will be particularly inappropriate to provide Simpson with regulatory assurances in relation to tailed frog and Southern torrent salamander. As noted by the “no surprises” rule and Congressional intent for ESA section 10, unlisted species should only be covered by section 10 permits if they are addressed as if they were listed. However, the HCP/CCA has failed to do this. As discussed below, the HCP/CCA largely fails to provide mitigation measures specifically for tailed frog and Southern torrent salamander. As noted in HCP/CCA

The decision to include a proposed, candidate or other unlisted species in an HCP is a voluntary one made by a Permit applicant - not the Services. The amphibian covered species (tailed frog and southern torrent salamander) currently are unlisted. Even though incidental take coverage is not required for these species, Green Diamond has volunteered to include conservation measure and monitoring for these species. These conservation measures have been developed using the biological goals and objectives in the Plan (AHCP/CCAA Section 6.1).

Regarding old growth forests, several studies have reported that the covered amphibians have increased abundance in old growth forests relative to young forests, but no study to date has shown a dependence on old growth forests. As described in AHCP/CCAA Section 4.3.11, studies conducted within Green Diamond's ownership (Diller and Wallace 1996; 1999) indicate that these headwater amphibians are well distributed throughout the Plan Area (see Appendix C-11). Furthermore, they do not require old growth forests per se, but rather stream characteristics that are often more commonly found in old growth forests (i.e., cold water and "clean gravels"). These species have continued to persist throughout the Plan Area as a result of the combination of a cool coastal climate and favorable geology in much of the Plan Area. Furthermore, the conservation measures that specifically protect headwater streams - Class II, III and headwall swales (see AHCP/CCAA Sections 6.2.1.3 through 6.2.1.7) - would allow habitat conditions in these streams to continue to improve relative to current conditions. For example, the riparian areas for the majority of the Class II streams, where the covered amphibian species reside, would be made up of stands in excess of 100 years old by the end of the Permit term. The Plan does not have the objective to create old growth or late successional forests, because as previously stated, none of the covered species are directly dependent on these older forests. However, under the Plan, most of the streams would have riparian areas with late successional habitat characteristics by the end of the term of the Permits.

The Services believe the headwaters monitoring projects are designed appropriately to detect impacts to amphibians early on. The monitoring is a paired BACI design to provide for the most sensitive approach in detecting a management (harvesting) effect. If a significant effect is

detected, an assessment would be triggered (yellow or red light threshold) to determine how the impact should be corrected. See AHCP/CCAA Section 6.2.5.

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Response to Comment G3-5

See the response to Comment G3-4. See also Master Response 15 regarding the adaptive management reserve account (AMRA).

Response to Comment G3-6

See Master Response 4. The monitoring as described above is designed to detect impacts to the covered amphibian species, that would result in significant changes to their population status, including environmental contaminants. However, it should be noted that covered amphibians do live in habitats with rapidly flowing water, which minimize the risk of significant exposure to these materials in contrast to amphibians in still-water habitats.

Response to Comment G3-7

As described in the Plan and EIS, the USFWS believes that the benefits to the covered amphibian species from Plan implementation would, if combined with conservation measures that could be applied on other similarly situated lands where these amphibians exist, contribute to their status sufficiently to avoid the need to list them under the ESA..

Response to Comment G3-8

The American Land Alliance's August 7, 2000, scoping letter has been incorporated. See response to Comments G3-98 through G3-193.

G3-4

Appendix D.1.6, tailed frogs are associated with late successional forests, and Southern torrent salamanders are heavily impacted by overstory removal. Other literature cited below also suggests that torrent salamanders are closely associated with old growth forests. Nevertheless, the HCP/CCA neither requires the maintenance of late successional forest conditions *anywhere*, nor does it adequately preclude overstory removal in upper stream reaches, seeps, and other important habitat areas for tailed frog and Southern torrent salamander, including in seeps and springs which have been impacted by past practices, which are lacking aquatic life, and which are thus not identified as class II waters. To the extent the HCP/CCA does include mitigation measures which may benefit the amphibians -- i.e., the HCP/CCA's riparian zone protections -- those measures are oriented towards the protection of lower stream reaches. Meanwhile, upper stream reaches are more important for amphibians, as noted by HCP/CCA figure 3-1 and Table 3-2. Moreover, as discussed below, the HCP/CCA's riparian zone protections allow larger and older trees to be logged in the majority of the riparian zones.

G3-5

Similarly, Congressional intent for ESA section 10 clearly indicated that HCPs were expected to benefit the covered species, in return for providing landowners with regulatory flexibility and assurances. However, Simpson's HCP/CCA does not require benefits to amphibians. In fact, flaws in the plan's monitoring and adaptive management thresholds could allow significant continued impacts to the species.

G3-6

The HCP/CCA also completely fails to address Simpson's likely use of herbicides and other chemicals which are likely to significantly impact tailed frogs and Southern torrent salamander, and their chances of survival and recovery.

G3-7

Thus it can not be reasonably concluded that the HCP/CCA minimizes and mitigates impacts to tailed frog and Southern torrent salamander to the maximum extent practicable, nor can it be reasonably concluded that issuance of a "take" permits for these species, based upon the measures provided in the HCP/CCA, would provide for these species' survival, much less their recovery.

G3-8

As discussed below, the HCP/CCA also fails to meet a number of other important biological and legal objectives and requirements for HCPs and CCAs and the recovery of the covered species.

The HCP/CCA and EIS also both fail to address many of the points raised in our scoping letter of August 7, 2000. Please note that we wish to incorporate our NEPA scoping letter into these comments by reference.

Given these problems, and those described in more detail below, we cannot support the issuance of an Incidental Take Permit or an Enhancement of Survival Permit to Simpson, particularly if "no surprises" type guarantees are associated with these permits. We urge the US Fish & Wildlife Service (USFWS) and NMFS (collectively, the Services) to correct the HCP/CCA's deficiencies before issuing these permits to the Company.

Response to Comment G3-9

See Master Response 19 regarding regulatory assurances and the treatment of unlisted species under CCAA/ESP as compared to an HCP/ITP. In addition, see EIS Section 1.3, AHCP/CCAA Section 1.4.1 and Master Response 8 regarding the Permit issuance criteria.

Response to Comment G3-10

Green Diamond is seeking take authorization for these species under ESA Section 10(a)(1)(A). By definition, this section does not impose a “no take” standard. Instead, it provides authority for the Services to authorize incidental take and thereby grant an exception to the take prohibition in ESA Section 9 in the event these species become listed under the ESA during the term of the Permits. The issuance criteria for ESPs are listed in EIS section 1.3, AHCP/CCAA Section 1.4.1, and Master Response 8-- there is no requirement to “significantly enhance” a species’ chances of survival and recovery in these criteria. For example, populations of tailed frog and southern torrent salamander were well distributed across the Plan Area, and “significant enhancement” may not be required under the Plan to meet the ESP criteria.

Conservation and Permit Issuance Standards Which Should Apply to the Unlisted Species

The Services’ CCA regulations include some of the same conservation plan requirements and permit issuance standards required of HCPs and Incidental Take Permits. Inasmuch as this is the case, our comments that reference standards and requirements for HCPs will be equally applicable to the proposed CCA and Enhancement of Survival Permit. Examples include requirements to minimize and mitigate the impacts of “take” to the maximum extent practicable, and to avoid harming species’ chances of recovery, as well as their survival.

With regard to the unlisted species, the HCP/CCA should also be required to meet all other statutory, regulatory, and policy goals and requirements for HCPs, including the requirements of the Services’ HCP Handbook. To the extent that Simpson’s industrial forest management practices will “take” the covered unlisted species, it will be inappropriate and harmful to issue an Enhancement of Survival Permit for the covered species, particularly cutthroat trout, tailed frog, and Southern torrent salamander, unless the CCA also meets these other goals and requirements for HCPs.

To the extent that it is appropriate to give Simpson an ESA section 10 permit and associated regulatory assurances for these unlisted species, the permit and assurances should be accompanied by a conservation plan which, at a minimum, meets the ESA section 10 standards and the Services’ planning standards for HCPs. Likewise, the Services’ issuance criteria for such a plan should be the equivalent, at a minimum, to those for HCPs. HCPs are how Congress and ESA section 10 intended for the impacts of harm or “take” to imperiled species to be addressed, when permitting actions that may “take” imperiled species. The structure of ESA section 10 clearly suggests that permits for actions which may harm imperiled species are to be accompanied by mitigation plans, i.e., HCPs. Such permits are authorized by ESA section 10(a)(1)(B). Permits authorized by ESA section 10(a)(1)(A) are clearly for actions which only benefit, and do not harm imperiled species, since no mitigation plans are envisioned in connection with section 10(a)(1)(A), and since only enhancement of propagation and enhancement of survival activities are mentioned in 10(a)(1)(A).

As has been reflected in the final “no surprises” rule, Congress also intended for unlisted species to be addressed through ESA section 10 and covered by regulatory assurances only if they are addressed “as if listed.” Addressing them “as if listed” means developing an impact mitigation plan which meets all relevant requirements for HCPs, including the requirements of ESA section 10(a)(2), ESA section 7, the Services’ regulations for HCPs and other permits, and the Services’ HCP Handbook.

Simpson’s forest management operations are clearly likely to harm or “take” cutthroat trout, tailed frog, and Southern torrent salamander, and perhaps also rainbow trout. The potential for intensive industrial forestry practices like those employed now or potentially by Simpson to harm cutthroat trout and the amphibians is clearly indicated by information included in the HCP/CCA and related planning documents, the administrative records relating to cutthroat trout, and other scientific literature. Moreover, as discussed elsewhere in our comments,

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Response to Comment G3-11

See Master Response 9 for response to comments regarding quantification of take.

Lands may be added to the Plan Area in accordance with AHCP/CCAA Section 1.3.2.3 and IA paragraph 11.2. To add commercial timberlands to the Plan Area within any of the 11 HPAs, Green Diamond would submit to the Services a description of the lands that it seeks to add, along with a summary of relevant biological and physical characteristics that such lands share with existing Plan Area lands in that HPA. Characteristics found relevant to planning and implementation of the Plan for each HPA have been described in AHCP/CCAA Section 4.4 and may include geology and geomorphology, climate, vegetation, habitat conditions (including water temperature, channel and habitat type, LWD inventory, and estuarine conditions), salmonid population estimates and covered species occurrence and status (see also Master Response 3.7 and 3.11 regarding the conditions on lands in the HPAs that could be added to the Plan Area in the future). The IA limits expansions of the Plan Area under this process to an additional 15 percent of the Initial Plan Area.

Based upon the analysis of the HPAs provided in the Plan, it is presumed that all commercial timberlands within each HPA in the Eligible Plan Area share similar relevant characteristics and, therefore, that adding such lands to the Plan Area during the term of the Permits will not likely result in adverse effects on the covered species different from those analyzed in connection with the original Plan Area. If the disagree that the relevant characteristics of the proposed lands within the HPAs proposed for

G3-10

Simpson is not likely to be significantly enhancing the amphibians' chances of survival and recovery; in fact, the HCP/CCA would allow significant impacts to tailed frog and Southern torrent salamander. Cutthroat trout are also equally or more sensitive to habitat modifications resulting from industrial forestry operations as the other covered salmonids, which are also expected to be "taken" by Simpson.

Adequacy of Conservation Planning and Impact Mitigation -- Impact Assessment

Requirements:

The NMFS regulations for HCPs state that HCPs must describe the HCP and Incidental Take Permit's anticipated impacts, including the amount, extent, and type of "take," as well as the anticipated impact on habitats and the likelihood of habitat restoration.¹

Sierra Club et al v. Bruce Babbitt et al found that HCPs need to determine how many individuals of affected species will be "taken," how many individuals will remain, what the distribution of the species is throughout its remaining habitat, and how this relates to the species' minimum viable population.²

Comments:

The HCP/CCA fails to meet these requirements.

The HCP/CCA's planning documents and Implementation Agreement also incorrectly assume that any timberlands which Simpson may purchase and request to include in the HCP/CCA and "take" permit will be similar to the original plan area, in terms of their ecological conditions and the impacts that will result from Simpson's management. While other timberlands in the area which have been managed by commercial timber companies may indeed be in a condition similar to those held by Simpson, Simpson could also potentially purchase other forestlands which are more ecologically intact, such as those which may be held by non-industrial private forestland owners in the area.

Requirement:

The effects of likely future changes in environmental conditions, including those related to climate change, must be accounted for.

Comments:

The HCP/CCA largely fails to plan for future changes in environmental conditions, including those which may occur as a result of human-induced climate changes.

G3-11

G3-12

addition to the Plan Area are sufficiently similar to existing Plan Area lands, the Services and Green Diamond will confer in good faith and pursue the informal dispute resolution mechanisms set forth in IA paragraph 13.6 in an effort to reach an agreement. Until concurrence is reached, such lands proposed by Green Diamond for inclusion will not become part of the Plan Area except pursuant to the formal amendment process set forth in IA paragraph 12.

Response to Comment G3-12

The Plan and IA do consider other changes in conditions that may occur over the term of the Plan and Permits [see, e.g., changed circumstances (AHCP/CCAA Section 6.2.9 and 1A paragraph 9) and unforeseen circumstances(AHCP/CCAA Section 6.2.10 and IA paragraph 4.3)]. The comment does not provide any information to explain how a cumulative impact could result from future changes in environmental conditions that might occur as a result of human-induced climate change, or provide a basis to conclude that any such change should be evaluated further here; such potential impacts are not reasonably foreseeable.

Response to Comment G3-13

The Plan and EIS pertain to ESA sections 10(a)(1)(A) and 10(a)(1)(B). Requirements under ESA section 7 will be addressed in the Services' biological opinions for the issuance of the ITP and ESP.

Response to Comment G3-14

The starting point for evaluation of potential effects is the baseline condition. The baseline is discussed in Master Response 1 and AHCP/CCAA Section 2, and is used as a point of comparison in the evaluation of the No Action Alternative in the EIS (see EIS Section 2.1 and, e.g., EIS Sections 4.22 and 4.4.2). Regarding the Plan's biological goals and objectives, the Services believe that "Explicit biological goals and objectives clarify the purpose and direction of the HCP's operating conservation program. They create parameter and bench marks for developing conservation measures, provide the rationale behind the HCP's terms and conditions, promote and effective monitoring program, and, where appropriate, help determining the focus of an adaptive management strategy....Biological goals provide broad, guiding principles for and HCP's operating conservation program and the biological goals are the rationale behind the minimization and mitigation strategies." (65 FR 35251). The "maximum extent practicable" ITP issuance criterion pertains to minimizing and mitigating the impacts of take, not the biological goals and objectives. Finally, the Services have determined that issuance of the ITP and ESP will not appreciably reduce the likely hood of survival and recovery of any of the covered species in the wild.

Requirement:

Under ESA section 7, the Services must, for each of the covered species, evaluate the cumulative impact of each form of "take" authorized by the Incidental Take Permit, across the plan area, across the larger ecological region, and across each of the species' ranges. The effects of other "take" authorizations on public and private lands must also be accounted for, as must other activities which may affect the covered species. The cumulative effect of the permitted activities in the plan area and across the species' ranges must be evaluated relative to conditions associated with each of the species' survival, and with each of the species' recovery.

Comments:

The HCP/CCA and EIS fail to adequately meet these requirements. The planning documents' cumulative effects analyses are quite cursory, and fail to account for impacts occurring outside the immediate plan area, including within the larger ecological region, and within the covered species' ranges. The analyses also completely fail to address impacts to the covered amphibian species, tailed frog and Southern torrent salamander. The analyses also fail to compare the outcomes of the HCP/CCA and other activities with outcomes that would correspond to the recovery and survival of each of the covered species.

Adequacy of Conservation Planning and Impact Mitigation – Biological Goals

General Comments on Biological Goals and Objectives:

The HCP/CCA's biological goals and objectives do not provide a sufficient basis for a biologically or legally adequate HCP or CCA. The plan's goals and objectives are extremely simplified and vague, fail to address a host of specific population and habitat variables, are not defined to the maximum extent practicable, do not include indicators and outcomes which correspond to the species' recovery, and are not sufficient to ensure that cumulative impacts to the species' survival and recovery are avoided.

Many of the goals and objectives are defined relative to current conditions, rather than conditions clearly associated with specific species' survival and recovery needs. Given that historical and current land management practices and habitat conditions are not sufficient for the species' survival and recovery, it is highly unlikely that objectives defined solely in relation to current conditions will adequately provide for the covered species' survival, much less recovery. Even the objectives for monitoring and adaptive management are defined relative to current conditions, meaning that these provisions will not function to address shortcomings in the plan's other goals, objectives, and conservation measures.

Response to Comment G3-15

The compliance of the Plan and Permits with the ESA Section 10 approval criteria is discussed in Master Response 8. Biological goals and objectives have been discussed in AHCP/CCAA Section 6.1 and Master Response 12. To meet the statutory criteria for approval of an HCP/ITP, Green Diamond's conservation program must: (i) minimize and mitigate the impacts of authorized incidental take of covered species that may result from Covered Activities to the maximum extent practicable and (ii) ensure that any such taking will not appreciably reduce the likelihood of the survival and recovery of such species in the wild. While these statutory criteria themselves are biological in nature, NMFS and USFWS have issued an Addendum to the HCP Handbook (the "Addendum" also is referred to as the "Five Points Policy") calling for an HCP to identify specific biological goals and objectives based on the Proposed Action that necessitates incidental take Permit issuance and the conservation needs of the covered species. As the Services explained in proposing the Addendum, the "biological outcome of the operating conservation program for the covered species is the best measure of the success of an HCP" (64 Fed. Reg. 11585). Further, the Service stated (at 65 Fed. Reg. 35251):

Explicit biological goals and objectives clarify the purpose and direction of an HCP's operating conservation program. They create parameters and benchmarks for developing conservation measures, provide the rationale behind the HCP's terms and conditions, promote an effective monitoring program, and, where appropriate, help determine the focus of an

G3-14

Requirements:

Specific, measurable biological goals and objectives must be identified for each of the covered species, and address target population levels, and all specific habitat components and conditions which are associated with each of the species' recovery.

Comments:

G3-15

The HCP/CCA fails to meet these requirements with regard to each of the covered species.

G3-16

Specific, verifiable outcomes are not identified in relation to most habitat components and conditions for the covered species.

G3-17

The water temperature objective appears to be defined relative to current conditions and watershed sizes, and does not appear to be defined relative to specific objective conditions associated with each of the covered species' conservation needs.

G3-18

Population targets are only provided for the amphibian species, and even then, they are identified relative to current conditions, not to population levels associated with the species' survival or recovery. The amphibian population targets are also defined only in terms of percentages of area units in which amphibians are found, meaning that the presence of only one amphibian per unit area might be sufficient to meet the objective, even though this might correspond to a highly depressed population. The lack of objectives which correspond to specific habitat conditions needed by the covered amphibians also means that the presence of amphibians at any given time could also be a false indicator of their viability, since the degradation of habitat conditions may have a delayed impact on population levels.

G3-19

The large woody debris (LWD) objective fails to require provision of debris of sizes historically found in the planning area, i.e., sizes associated with habitat conditions required by the covered species. The objective also fails to require provision of source trees for woody debris on steep, unstable slopes, in headwall areas, along intermittent streams, and other areas which normally serve as sources of LWD into stream channels. Rather, the HCP/CCA simply requires source trees in the narrow riparian buffers along major stream channels. However, given the steep slopes found in the plan area, this means that trees falling into the stream channel will often span the channel well above the stream bed, and fail to provide the desired ecological function.

Requirements:

"Biological objectives are the different components needed to achieve the biological goal such as preserving sufficient habitat, managing the habitat to meet certain criteria, or ensuring the persistence of a specific minimum number of individuals." "Biological

adaptive management strategy. . . . Biological goals provide broad, guiding principles for an HCP's operating conservation program and the biological goals are the rationale behind the minimization and mitigation strategies.

The Addendum guides how biological goals and objectives are to be included in HCPs. Under this policy, one of the two ways is to structure an HCP using a prescription-based approach in which biological goals and objectives guide the development of specific measures that are included in the operating conservation program. In other words, under a prescription-based HCP, the measures are specific and enforceable, and the goals and objectives provide guidance. Green Diamond has elected to structure its Plan as a prescription-based HCP. The AHCP/CCAA Section 6.2 sets forth the specific conservation measures that are based on the Plan's biological goals and objectives. The AHCP/CCAA Section 6.3 supplements the Operating Conservation Program with further discussion of the intent, rationale and analysis that underlie the specific conservation measures and commitments outlined in AHCP/CCAA Section 6.2.

Response to Comment G3-16

The role of biological goals and objectives in a prescription-based HCP is not to provide "specific verifiable outcomes," but rather to guide development of specific measures that have been included in the operating conservation program (see response to Comment G3-15 and Master Response 12).

Response to Comment G3-17

Water temperature objective is appropriately targeted at the covered species' conservation needs. As discussed in response to Comments G3-15 and G3-16 and in Master Response 12, biological goals and objectives in a prescription-based plan guide development of specific measures that are included in the operating conservation program. Further, as the Services explained in the Addendum: "In the context of HCPs, biological goals are the broad, guiding principles for the operating conservation program of the HCP. They are the rationale behind the minimization and mitigation strategies. For more complex

HCPs, biological objectives can be used to step down the biological goals into manageable, and, therefore, more understandable units" (65 Fed. Reg. 35251).

As set forth in AHCP/CCAA Section 6.1.2.1, one of the intended results of Green Diamond's Operating Conservation Program is to "[m]aintain cool water temperature regimes that are consistent with the requirements of the individual species." This goal is "stepped down" in the summer water temperature objective set forth in AHCP/CCAA Section 6.1.2.2.1 and is designed to address the needs of the covered species. Together, the biological goal and objectives guided development of the riparian management and other specific measures set forth in the Operating Conservation Program (AHCP/CCAA Section 6.2).

Response to Comment G3-18

As set forth in AHCP/CCAA Section 6.1.2.1, one of the intended results of Green Diamond's Operating Conservation Program is to "[a]llow for the maintenance or increase of populations of the amphibian covered species in the Plan Area through minimization of timber harvest-related impacts on the species." This goal is "stepped down" in the two-part amphibian population objective set forth in AHCP/CCAA Section 6.1.2.2.3; the objective of having no measurable impact on the population, along with a percentage presence, is a credible objective for the amphibian species. Together, the biological goal and objective guided development of the riparian management and other specific measures set forth in the Operating Conservation Program (AHCP/CCAA Section 6.2). As explained in AHCP/CCAA Section 4 and Appendix C of the Plan, certain characteristic habitat types in each of the HPAs and certain existing factors appear to be limiting the survival and recovery of the covered species, their habitats or the proper functioning of healthy aquatic/riparian ecosystems. With this and the biological goals and objectives in mind, the conservation measures in the Operating Conservation Program have been developed to address these constraints.

Response to Comment G3-19

See Master Response 18. The data provided in the Plan indicates that the lack of the larger sizes of LWD is one of the key potential limiting

factors in the Plan Area. The riparian conservation measures (AHCP/CCAA Section 6.2.1) are specifically designed to allow for retention and maximum growth of those trees that have the greatest potential to provide functional LWD. However, without active intervention (e.g., direct placement of LWD in the streams), nothing can be done beyond retaining these riparian trees and allowing them to grow with the expectation that some of them will recruit to the stream. Further, the slope stability measures (AHCP/CCAA Sections 6.2.2 and 6.3.2) specifically provide for retention of trees on unstable slopes and headwall areas. The Services believe the LWD measures in the Plan are sufficient, particularly when considered in the context of the Plan as a whole.

Response to Comment G3-20

The quoted selections from the Addendum assume that this is a results-based HCP. However, Green Diamond's Plan is prescription-based. See response to Comment G3-15 and Master Response 12.

Response to Comment G3-21

The quoted selections from the Addendum assume that this is a results-based HCP. However, Green Diamond's Plan is prescription-based. See response to Comment G3-15 and Master Response 12.

Response to Comment G3-22

Consistent with a prescription-based approach, the Plan's biological goals and objectives guide the development of specific measures that are included in the Operating Conservation Program. See response to Comment G3-15 and Master Response 12. Further, as explained in AHCP/CCAA Section 4 and AHCP/CCAA Appendix C, certain characteristic habitat types in each of the HPAs and certain existing factors appear to be limiting the survival and recovery of the covered species, their habitats or the proper functioning of healthy aquatic/riparian ecosystems. With this and the biological goals and objectives in mind, the conservation measures in the Operating Conservation Program (AHCP/CCAA Section 6.2) have been developed to address these constraints.

objectives should include the following: species or habitat indicator, location, action, quantity/state, and timeframe needed to meet the objective."³

Comments:

The HCP/CCA fails to meet most of these requirements. No timeframes are identified for meeting the plan's objectives for large woody debris, summer water temperatures, monitoring and adaptive management, and amphibians. Specific, measurable outcomes are not identified for most of the habitat conditions and parameters associated with the covered species and their recovery. As discussed above, adequate population and habitat targets are not identified for most of the covered species. Generally no locations are identified in relation to the goals and objectives.

Requirements:

"...each covered species that falls under that goal or objective must be accounted for individually as it relates to that habitat."⁴

Comments:

The HCP/CCA fails to provide goals and objectives specific to each of the covered species. Even where there are objectives specific to the amphibian species, they are so generalized as to not account for differences between the amphibian species and their conservation needs.

Requirements:

"The biological goals and objectives of an HCP are commensurate with the specific impacts and duration of the applicant's proposed action."⁵

Comments:

The HCP/CCA's biological goals and objectives are extremely vague and cursory, despite the fact that the HCP/CCA and "take" permit provide the applicant with regulatory assurances for 50 years -- or longer -- over an area of roughly half a million acres. (While the initial plan term is for 50 years, the Implementation Agreement allows the plan and its regulatory assurances to be extended for indefinite periods.) Nor do the goals and objectives correspond to specific conditions associated with the covered species' recovery, despite the plan's extensive and even indefinite duration. The goals and objectives are also not commensurate with the potential impact of the applicant's permitted land management activities, many of which have the potential to extirpate the covered species in the planning area.

Response to Comment G3-23

See Master Response 8.2.

Response to Comment G3-24

The concept of “measurable verifiable outcomes” is addressed in response to Comment G3-16.

G3-23

Requirements:

“...the Services will ensure that the biological goals are consistent with conservation actions needed to adequately minimize and mitigate impacts to the covered species to the maximum extent practicable.”⁶

Comments:

The plan’s goals and objectives are not defined to the maximum extent practicable, and do not include measures which correspond to mitigation measures which would offset impacts to the covered species to the maximum extent practicable.

Requirements:

Sierra Club et al v. Bruce Babbitt et al found that current data on species’ conditions and recovery needs must be used.⁷

Comments:

Population levels and habitat conditions and parameters associated with each of the covered species’ recovery are not identified, nor are they reflected in the plan’s goals and objectives. To the extent that any measurable and verifiable outcomes are identified in the plan’s goals and objectives, they typically are defined in relation to current conditions in the plan area, and are not necessarily defined in relation to conditions associated with the species’ survival or recovery.

G3-24

Adequacy of Conservation Planning and Impact Mitigation – Extent and Quality of Mitigation

Requirements:

ESA section 10(a)(2)(B)(ii) requires HCPs to minimize and mitigate the impacts of “take” to the “maximum extent practicable.”

NMFS’ rules for permits also state that the Administrator will consider whether the best available technology was used for impact minimization and mitigation.⁸

The Services’ HCP Handbook states that if the landowner cites economic considerations as the reason for failing to utilize an alternate land management approach, then the landowner must provide supporting economic information, unless it is proprietary.⁹

The Services must analyze and document whether the HCP has indeed minimized and mitigated “take” to the maximum extent practicable.¹⁰ The Services’ HCP Handbook also requires the Services to consider the cost of additional mitigation, the benefits of additional

Response to Comment G3-25

See Master Response 8 for information on the ITP issuance criterion of minimizing and mitigating the impacts of taking to the maximum extent practicable.

Best Available Technology

NMFS includes consideration of the use of “best available technology” for minimizing or mitigating impacts as one of the criteria for issuance of an ITP (50 C.F.R. Section 222.307(c)(1)(iv)). The measures included in the Operating Conservation Program are based on the best available information and the Services believe that the best available technology was employed here; therefore, the Plan meets the ESA approval criteria.

Economic Data

The Services’ guidance for implementing ESA Section 10, the HCP Handbook (at 7-3), recognizes that the Services’ consideration of the mitigation program proposed by a Permit applicant is based on two factors: First, the adequacy of the minimization and mitigation program and, second, whether it is the maximum that the applicant can practically implement and that the two considerations are not to be given equal weight:

“To the extent maximum that the minimization and mitigation program can be demonstrated to provide substantial benefits to the species, less emphasis can be placed on the second factor. However, particularly where the adequacy of mitigation is a close call, the record must contain some basis to conclude that the proposed program is the maximum that can be reasonably

mitigation, the amount of mitigation provided by other landowners, and the landowner’s own abilities.”

In the Natomas HCP case, the court agreed that the Services must consider HCP alternatives which would provide higher levels of mitigation than the proposed HCP, stating that “...the most reasonable reading of the statutory phrase “maximum extent practicable” nonetheless requires the Service to consider an alternative involving greater mitigation.” The court also found that the Services must have some basis for finding that higher levels of mitigation aren’t practicable, stating that “...the record should provide some basis for concluding, not just that the chosen mitigation fee and land preservation ratio are practicable, but that a higher fee and ratio would be impracticable.”¹²

Comments:

None of the preceding requirements have been met. The HCP/CCA clearly fails to mitigate and minimize impacts to each of the covered species to the maximum extent practicable. The plan also fails to use the best available technology. Simpson has also failed to provide economic data supporting the conclusion that more effective conservation measures would not be practicable. The EIS and HCP/CCA analyses also fail to adequately and independently examine the question of whether Simpson has used the most effective conservation measures practicable.

The HCP/CCA’s mitigation measures are heavily dependent upon measures for riparian zone buffers. However, the HCP/CCA’s riparian buffer measures are dramatically weaker and less sufficient for the covered species’ survival and recovery than riparian buffer measures included in other recent HCP’s and “take” permits approved for industrial forestry operations in the region, demonstrating that the HCP/CCA has not mitigated impacts to the covered species to the maximum extent practicable. The Pacific Lumber HCP, for example, provided the following measures: Class I streams: inner, no-harvest buffer to 100 ft.; outer, single-tree-selection-only buffer to 170 ft. Class II streams: inner, no-harvest buffer to 30 ft.; outer, single-tree-selection-only buffer to 130 ft.; outer, equipment-exclusion zone to 170 ft. Class III streams: 30 ft. no-harvest buffer; outer, equipment exclusion zone to 50 to 100 ft.

The HCP/CCA’s mitigation measures are also substantially weaker and more simplified than those employed in another HCP recently developed by Simpson for its timberlands in the Olympic Peninsula. Whereas the Olympic Peninsula HCP developed stream buffers and other mitigation measures which were tailored to a number of important variables for stream types and habitat conditions, the proposed HCP/CCA adopts a “one size fits all” approach that is far less likely to account for important variations in stream types and conditions.

Using longer timber rotations (i.e., allowing each timber stand to grow longer and reach more of its productive potential before being logged) across timber harvest units

G3-25

G3-26

G3-27

G3-28

required by that applicant. This may require weighing the costs of implementing additional mitigation, benefits and costs of implementing additional mitigation, the amount of mitigation provided by other applicants in similar situations and the abilities of that particular applicant.”

The requirement to minimize and mitigate the impacts of the taking is not calibrated primarily in terms of dollars; instead, the key consideration is whether impacts of take have been minimized or mitigated to a level of non-significance. Recognizing that the ESA does not require Permit applicants to affirmatively recover species (see discussion in Master Response 8), NMFS determined, consistent with the HCP Handbook, that the proposed mitigation program meets the threshold established in ESA Section 10(a)(2)(B)(ii).

The ESA does not prescribe specified mitigation measures for all HCPs. In fact, the HCP Handbook recognizes (at page 7-3) that it is the applicant’s decision which particular measures to propose. The Services are, however, responsible for determining whether the measures proposed meet the ESA standard to minimize and mitigate the impacts of take to the maximum extent practicable. In other words, the ESA does not direct NMFS to decide whether Green Diamond has proposed “the most effective” measures as the comment suggests, but only that the measures satisfy the ESA standard. The minimization and mitigation measures set forth in the Operating Conservation Program (AHCP/CCAA Section 6.2) satisfy the ESA Section 10(a)(2)(B) standard.

Response to Comment G3-26

The Plan’s riparian management measures have been set forth in AHCP/CCAA Section 6.2.1. NMFS believes that these measures, when implemented together with the other provisions of the Operating Conservation Program (AHCP/CCAA Section 6.2), will minimize and mitigate the impacts of take to the maximum extent practicable (see Master Response 8). The ESA requires that a conservation program, as a whole, minimize and mitigate the impacts of take to the maximum extent practicable - it does not require that a proposed plan duplicate, equal or exceed the measures included in previously-approved plans on

a measure-for-measure basis (see Master Response 6, regarding comparison to the Pacific Lumber Company HCP). Many of the riparian protection measures in the Pacific Lumber Company HCP listed by the commenter are interim measures which can change throughout the Permit period as a result of watershed analysis and adaptive management requests by the permittee.

Response to Comment G3-27

See response to Comment G3-26. The Plan describes the covered species and their habitats in AHCP/CCAA Section 3, describes covered species and their habitats in the Plan Area in Section 4, describes potential impacts to covered species and habitats that may result in take in Section 5, proposes an Operating Conservation Program that provides conservation benefits by addressing the particular existing factors that appear to be limiting for the covered species, their habitats, or the proper functioning of healthy aquatic/riparian ecosystems in Section 6 and, in Section 7, assesses the conservation strategy’s effectiveness in meeting the purposes of the Plan. Based on species-specific, habitat-specific and area-specific inquiry and assessment, a conservation program tailored to meet those specifics, the Plan’s approach is far from “one size fits all.”

See Master Response 6, regarding comparison to the Pacific Lumber Company HCP. The same reasons apply to the comparison of the Green Diamond Northwest HCP with the Green Diamond California HCP. The key is whether the HCP as proposed meets the ITP approval criteria. The Plan is not required to duplicate other HCPs in order to meet these criteria.

Response to Comment G3-28

The Services do not believe that requiring longer rotations is needed to further minimize and mitigate impacts of take for the ITP species under the Plan. In addition, Green Diamond’s Plan, and application for the ITP and ESP, were based upon a 50-year rotation. The Services do not have the authority to select which measures a Permit applicant includes in its Plan, but only to determine if those proposed by the applicant meet the ESA Permit issuance criteria, which are discussed in AHCP/CCAA Section 1.4.1 and Master Response 8. The Services believe that, as a whole, the Plan meets these criteria.

Response to Comment G3-29

See responses to Comments C4-24 and G3-28.

Green Diamond satisfies State Law MSP obligations by meeting the requirements established in an MSP Plan developed under “Option A” of the CFPR Section 913.11 (see EIS Section 1.6.3.2). Further, although the AHCP/CCAA does not mandate a specific rotation age, Green Diamond must comply with maximum sustained productivity requirements under State law, independent of its obligations under the Plan. State law generally requires timber stands to reach the 50 year age class prior to regeneration harvest.

Response to Comment G3-30

As discussed in the response to Comment G3-26 and 27, ESA section 10(a)(1)(B) does not require that a conservation program to copy measures included in previously-approved HCPs on a measure-for-measure basis, but that the conservation program, as a whole, meets the criteria for issuing the Permits. Just as the approaches identified in the comment meet ESA requirements for the specific species, habitats and conditions of those HCPs, the approach proposed in this Plan’s Operating Conservation Program is appropriate for this Plan, these species and this Plan Area. See AHCP/CCAA Section 3 for a description of the covered species and their habitat, Section 4 for a discussion of the Plan Area and Section 6.2 for the Operating Conservation Program.

Response to Comment G3-31

See Master Response 8 and response to Comment G3-30.

G3-28

can substantially reduce cumulative watershed impacts (including from logging, road use, and chemical applications), allow for the development of more mature forest habitats, while also maintaining and potentially increasing timber yields, wood quality, and timber revenues, per acre, per year. At a minimum, rotations which reach culmination of mean annual increment (CMAI) should be used to maximize timber productivity. It should be noted that the use of commercial thinning can also extend the timeframe during which CMAI occurs, allowing for even longer rotations to be practicable and beneficial.¹³

G3-29

The discussion in section 2.4 of the HCP/CCA indicates that Simpson will be clearcutting its timber stands on rotations of 55 years. This falls well below CMAI for coastal redwood, and likely also below CMAI for Douglas fir and other commercial timber species in much of the plan area. Thus Simpson and its HCP/CCA are not maximizing timber production, and are missing opportunities to reduce watershed impacts and improve habitat conditions for the covered species, while maintaining and even improving timber quantity and quality. It should also be noted that the HCP/CCA does not actually require Simpson to use rotations of *any* particular length -- under the HCP/CCA, Simpson could choose to employ rotations much shorter than 50 years.

G3-30

Several existing HCPs explicitly require longer timber rotations or other improved silvicultural methods, further demonstrating their practicability. The Elliott State Forest HCP uses 80 to 240 year timber rotations and maintains significant late successional reserves above and beyond its narrow stream buffers. While the Elliott State Forest is public land, it is managed principally to generate revenue for the State, and is thus comparable to other commercial ownerships. The Port Blakely HCP also uses 70 year timber rotations, versus the 40 to 50 year industry norm for the area. Other non-industrial landowners and some industry landowners are also using selection forestry, longer timber rotations, tree-pruning, production of edible mushrooms and other nontimber forest products, and other strategies to make improved forest and habitat management cost-effective. The Yakima Indian Nation’s conservation plan and agreement with the USFWS also provides a point of comparison. The plan includes substantial reserve areas, maintains northern spotted owl populations, focuses on selective logging, and has relatively thorough monitoring provisions. Simpson’s HCP uses none of these approaches.

G3-31

Other HCPs have also used more comprehensive and rigorous monitoring and adaptive management protocol. Examples include the Plum Creek Timber Co’s Inland Fish HCP, and the Washington Department of Natural Resource’s HCP. While sometimes still flawed, these other HCP’s approaches are nevertheless more rigorous than Simpson’s.

G3-32

Simpson is also using clearcutting and even-aged forestry as the predominate silvicultural method when selection forestry is quite silviculturally and economically

Response to Comment G3-32

The commenter seems to be asking why an alternative that utilizes uneven-aged management was not developed and selected. In large part, such an alternative would not be consistent with Green Diamond's needs. Other significant factors in Green Diamond's analysis and planning included the tree species mix and environmental and physical conditions that affect growth and productivity. The conifers of primary economic value on Green Diamond's lands are coast redwood and Douglas-fir, which require substantial direct sunlight to grow rapidly at young ages. On the basis of the unique growing conditions in the region and the long-term management approach implemented by Green Diamond, the continued use of even-aged regeneration tools are necessary to support Green Diamond's management and business objectives. Further, even-aged management is key to the implementation of Green Diamond's achievement of maximum sustained production on their lands. To meet Green Diamond's needs, the Plan must be consistent with Green Diamond's management and productivity objectives that are based on their extensive site-specific and regional analysis and reflected in these various planning templates.

Furthermore, requiring a different silvicultural system as a new or additional measure in the Plan would not be necessary. The selection of specific prescriptions is a matter of the Permit applicant's discretion (HCP Handbook at 3-19). The Services' role in designing the conservation program is to "be prepared to advise" during the development of the Plan and to judge its consistency with the ESA approval criteria once the application is complete (HCP Handbook at 3-6 and 3-7). The ESA does not require that any particular measure be adopted or imposed, but only that its criteria for Permit issuance be met. Issuance criteria are discussed in AHCP/CCAA Section 1.4.1 and Master Response 8. As explained in Master Response 8, the Services believe that the Plan, including its management approach, meets ESA section 10(a) approval criteria. Under these circumstances it would not be appropriate to require Green Diamond to change its silvicultural system.

Response to Comment G3-33

This comment is addressed in response to Comment G3-25.

Response to Comment G3-34

See response to Comment G3-25 and Master Response 8.

Response to Comment G3-35

See Master Response 18.

Conservation measures to maintain the riparian function in Class-III watercourses are set forth in AHCP/CCAA Section 6.2.1.5 and are described in greater detail in AHCP/CCAA Section 6.3.1.3. These measures include provisions for equipment exclusion (to minimize soil disturbance), existing LWD retention (to mitigate sedimentation), burning (to minimize bare soil exposure), as well as special provisions for Class-III watercourses with SSS, which are described as Tier B Protection Measures.

Class-III, Tier B Protection Measures are triggered by the gradient of slopes leading to a Class-III watercourse, depending on HPA (or initial default HPA Group). The slope gradient thresholds for the various initial default HPA Groups are the same as for SSS conservation measures, which were developed from empirical data from sites within the Plan Area. Compared to the other HPAs, the threshold gradients for Class-III, Tier B Protection Measures are the lowest in those HPAs that are dominated by poorly consolidated geology. Therefore, the conservation measures are sensitive to geologic conditions. Class-III, Tier B Protection Measures include wider equipment exclusion and ignition prohibition zones, existing LWD retention, hardwood and sub-

G3-32

practicable for the forest types found in much of the plan area, and can significantly reduce impacts.

G3-33

The planning documents do not include an analysis of whether the best available technology was used, and will not serve as an adequate basis for NMFS' determinations.

G3-34

The planning documents include virtually no analyses of Simpson's financial capacity or limitations on adopting more effective mitigation measures, and cannot serve as an adequate basis for the Services' determinations. The documents also lack an analysis of the potential costs and benefits of adopting more effective mitigation measures.

Requirements:

The HCP must include mitigation measures which provide each of the covered species with a high probability of recovery of resilient and abundant populations, and with fully functioning habitat conditions needed to support their recovery. ESA section 10 and the Congressional intent for section 10 clearly require that HCPs and Incidental Take Permits avoid harming species' chances of recovery, in addition to their chances of survival.¹⁴

Comments:

G3-35

The HCP/CCA relies heavily on riparian buffer zones to minimize and mitigate impacts to the covered species. Unfortunately, these zones are too narrow and poorly protected to adequately mitigate impacts from the intensive forest management operations permitted upslope and in the riparian zones themselves. Buffer zones with meaningful protection measures are absent for all practical purposes on class III streams. Protection measures for unstable and steep slopes do not include slopes above class III streams, meaning excessive and damaging levels of slides and sediment will likely be carried into class III streams and, in turn, class II and I streams.

G3-36

The HCP/CCA's buffer zones for class I streams are only 150 ft. Zones for class II streams are only 70 to 100 ft. Zones for class III streams range from 30 to 50 ft. While these widths may sound substantial, much of the plan area is characterized by steep slopes, as noted by the HCP/CCA. Since the HCP/CCA's buffer widths are measured on the slope, their actual horizontal distance will be considerably shorter. As noted below, buffer widths need to be considerably wider to provide full riparian ecological function for the covered species. Windthrow impacts to the outer portion of the riparian buffers are also likely to render the HCP/CCA's narrow buffers even less effective.

G3-37

In some particular areas, the HCP/CCA requires some additional buffering where steep unstable slopes extend beyond the normal riparian zones. However, these limited situations will likely not be sufficient to provide adequate full riparian

merchantable conifer retention except as necessary to safely fall or yard merchantable trees, and merchantable conifer retention where such trees act as control points or contribute to maintaining bank stability, and one retained merchantable conifer per 50 feet of stream length.

Additionally, AHCP/CCAA Section 6.2.2.2 provides conservation measures for Headwall Swales in the Plan Area. Such landforms are characterized as steep convergent slopes within steep valleys upstream of Class III watercourses, where accumulation of thick soils and shallow subsurface run-off tend to be concentrated. Such landforms can also be found above Class II watercourses, depending on local conditions. Default conservation measures for field verified headwall swales are individual tree selection with even spacing of retained trees, retention of all hardwood and only one entry to such landforms during the term of the Permits.

Response to Comment G3-36

See Master Response 18.

Response to Comment G3-37

See Master Response 18 and the “likelihood to recruit” provision in AHCP/CCAA Sections 6.2.1.2 and 6.2.1.4. This provision is expected to insure that all the trees that are the most likely to recruit and become functional LWD must be retained. Factors which would be used to consider which trees will be retained as “likely to recruit” are shown in AHCP/CCAA Section 6.1.2.5. As a result of these considerations, most of the largest trees that are also likely to recruit will be retained. It will be possible to take a few large trees out of the RMZs if they have a low probability of recruiting to the watercourse. See Master Response 5 regarding “likelihood to recruit.”

Response to Comment G3-38

Master Response 18 discusses why the RMZ conservation measures provide equal or possibly greater LWD benefit than no-harvest buffers. The Plan gives redwoods priority for harvesting because the root mass does not die when a redwood is cut down. The few trees that Green Diamond would be allowed to harvest in the RMZ will act as a commercial thinning action. The Services believe that this should accelerate the growth of the remaining trees, some of which eventually will recruit to the stream as LWD. Also, as explained in Master Response 8, the Services believe that the Plan, taken as a whole, meets the ESA Section 10(a) approval criteria, and that it is not necessary or appropriate to require additional measures on this subject as a condition of Permit approval.

Response to Comment G3-39

Southern torrent salamanders may occur in locations of unconsolidated geology. Additional protective measures for Class III watercourses are not proposed in these areas. The selection of specific prescriptions, including whether to include additional protective measures for Class III watercourses, is a matter of the Permit applicant's discretion (HCP Handbook at 3-19). The Services' role during the development of a conservation program is to "*be prepared to advise,*" and to judge its consistency with the ESA approval criteria as a whole once the application is complete (HCP Handbook at 3-6 and 3-7). The ESA does not require that any particular measure be adopted or imposed, but only that its criteria for Permit issuance be met. Issuance criteria have been discussed in AHCP/CCAA Section 1.4.1, EIS Section 1.3 and Master Response 8. The Services believe, based on the analysis

G3-37

function across the landscape. Moreover, the HCP/CCA's prescriptions allow the largest trees within steep slope management zones to be logged, defeating the areas' natural function as a source of LWD.

G3-38

The HCP/CCA fails to include any no-harvest buffer zones along streams, with the limited exception of inner zones in areas with particularly steep slopes. All buffer zones normally allow substantial logging, and allow the largest trees to be removed, defeating objectives for the recruitment of large woody debris (LWD). The HCP/CCA also states, in the context of class I streams, that redwoods will be given priority for logging, meaning that the trees which would ultimately provide the most durable LWD will not be allowed to mature and become LWD.

G3-39

The HCP/CCA's buffer zones for class II streams also fail to cover the entire stream reach in some cases.

G3-40

The HCP/CCA's buffer zones for class III streams also fail to require adequate retention of mature trees and other trees for the recruitment of LWD. In fact, no vegetation need be retained whatsoever on class III streams targeted for "tier A" measures.

G3-41

The HCP/CCA also fails to require the identification of streams which currently lack aquatic life, and are thus normally classified under the California Forest Practice Rules as class III, but which would normally support aquatic life were it not for past and/or current forest management impacts, and which therefore should be classified as class II streams, to provide for the recovery of the covered species.

G3-42

The HCP/CCA fails to identify and protect seeps and springs which would normally support Southern torrent salamander and other aquatic life, but which currently do not due to the impacts of past or current logging and forest management practices. Only seeps which are found to support aquatic life are identified as class II waters. Other seeps receive no protection. Section 3.2.2 of the HCP/CCA notes the importance of seeps to Southern torrent salamander.

G3-43

The HCP/CCA's riparian buffers are far weaker than those identified as being necessary for the covered species' survival and recovery, or even to simply avoid "take" of salmonids. According to NMFS' EIS for the Pacific Lumber HCP, full mitigation of "take" of salmonids would require no-harvest stream buffers of 340 ft. on each side of class I streams, 170 ft. on class II streams, and 100 ft. on class III streams.¹⁵

G3-44

USDA FS et al (1993), Huntington (1998), Pollock et al (1998), and the Draft EIS for the Pacific Lumber Headwaters HCP (USFWS et al (1998)) all indicate that buffer widths approaching two site potential trees (roughly 340 ft., depending on site) are necessary to *begin* providing microclimate effects and habitat for riparian species.¹⁶ Amphibians and reptiles comprise a large portion of the ecosystem in all water

provided in the Plan and EIS, that implementation of the Operating Conservation Program meets ESA requirements.

Response to Comment G3-40

Green Diamond's studies on Class III and headwater streams (described in AHCP/CCAA Appendices C4 and C11) indicate that mature trees do not necessarily become functional LWD in Class III watercourses. Mature trees in the headwater streams tend to be too large and span the small channels without providing any LWD benefit to the channel. Much of the functional wood in these headwater streams can be provided by limbs and other logging debris from the timber harvest. Tier A Class IIIs are only EEZs, because Green Diamond's studies indicate that they are not sensitive to the impacts of tree removal. See Master Response 18 regarding riparian widths..

Response to Comment G3-41

See response to Comment G3-42.

Response to Comment G3-42

This statement presumes that many seeps and springs that historically supported salamanders no longer do so. Historical unregulated timber harvesting impacted many headwater streams, but studies done within the Plan Area and described in the Plan (Diller and Wallace 1996) indicate that seeps and springs were comparatively less impacted. These data indicate that many of these features are less sensitive to management activities, because they are generally disconnected from roads, skid trails and other headwater streams that have the potential to transport sediment to the site.

In addition, this statement incorrectly assumes that southern torrent salamanders and other aquatic life must be present before Class II protection is provided to a seep or spring. AHCP/CCAA Section 6.3.1 indicates that for a feature to be given Class II designation, it is only necessary to have habitat for aquatic vertebrates, not species presence. Even if the aquatic vertebrate life had been eliminated by the direct effects of past management activities, habitat for aquatic life will still be

present at a seep or spring and the site will be classified as Class II and be provided with the commensurate protections.

Response to Comment G3-43

Green Diamond is seeking take authorization for the listed covered species under ESA Section 10(a)(1)(B). By definition, this Section does not impose a "no take" standard. Instead, it provides authority for the NMFS to authorize incidental take and thereby grant an exception to the take prohibition in ESA Section 9 and applicable regulations when the Services determine that the applicant's proposal meets the ITP issuance criteria.

Riparian buffer widths and management within them are discussed in Master Response 18. See response to Comment G3-26 regarding the ESA benchmark for an adequate HCP. Regarding comparison with the Pacific Lumber Company HCP in particular, see Master Response 6.

Response to Comment G3-44

See Master Response 18 regarding riparian widths and Master Response 6 regarding the relationship of this AHCP/CCAA to other HCPs. In addition, the literature that is cited by the commenter is not specifically relevant to the Plan Area. For example, a reference is made to Rudolph et al. (1990). This publication, in The Southwest Journal, states that amphibian and reptile populations are lower in aquatic habitats with narrow buffer widths. However, no evidence for this in coastal regions of the Northwest has been cited and the Services are unaware that any exists. Evidence provided in the Plan indicates that the covered amphibian species will be adequately protected by implementing the proposed conservation measures.

Response to Comment G3-45

The commenter does not define “intermittent and ephemeral streams”, but the comment seems to imply that all intermittent and ephemeral streams will not receive protection. Most streams that are “intermittent” in the sense of having discontinuous flow (i.e., portions with subsurface flow) will be classified as Class II streams, because they commonly support southern torrent or Pacific giant salamanders. Streams that are “intermittent and ephemeral” in the sense of completely drying up during portions of the year may be given Class II or III protection depending on the length of time that they are dry. Those that only dry up during the late summer and fall will be generally classified as providing habitat for aquatic vertebrates and given Class II protection. If a watercourse is dry most of the year, it will be given Class III protection. Determinations will be done on a case-by-case basis.

Those intermittent and ephemeral streams that receive Class II protection are not expected to have adverse effects on downstream habitat, because of the riparian buffers provided. Those that are classified as Class III watercourses will not have adverse effects on water temperatures downstream, because they do not carry water most of the year when water temperatures could potentially become excessive. The primary potential downstream effect from these Class III watercourses is related to sediment transport. However, the Class III protection measures (AHCP/CCAA Sections 62.1.5 through 6.2.1.7) along with slope stability measures (AHCP/CCAA Section 6.2.2) are designed to minimize and mitigate the effects of this potential impact.

systems and are an integral part of the food web. Adverse effects to amphibian and reptilian populations can lead to adverse impacts on aquatic species such as salmon and trout. Changes in microclimate conditions can alter the ecosystem of the riparian environment for amphibians, reptiles, and other plant and animal species. Buffer widths that allow increased direct and indirect solar radiation into the riparian zone will increase air temperature and decrease relative humidity in that area. If these measurements move beyond the tolerance levels of terrestrial riparian flora and fauna, these species may perish or be forced to find other suitable habitat to complete their life cycle. Rudolph et al (1990), for example, reported amphibian and reptile populations were significantly lower in aquatic habitats with narrow buffer widths (<30 meters) than those with wider buffer strips due to greater shading (i.e., less solar radiation and lower air temperatures) and open understory vegetation.¹⁷

The HCP/CCA’s measures for intermittent and ephemeral streams are particularly likely to be inadequate for water quality, downstream fish habitat, and amphibians, invertebrates, and other aquatic and riparian species. Intermittent streams normally provide important nutrients and food sources for fish and aquatic systems. Conversely, when impacted by logging and roading, these streams can significantly affect stream temperatures, sedimentation, hydrology, and other conditions downstream. The importance of intermittent, upslope streams to downstream fish habitat conditions is noted in USFWS (1999), NMFS (1998), and Reid et al (1999), as well as in NMFS’ critical habitat notices for Oregon Coast coho and Upper Columbia steelhead.¹⁸

The HCP/CCA’s narrow, inadequately protected, and -- in the case of class III streams -- virtually nonexistent riparian buffer zones will also likely lead to adverse impacts to amphibian populations. The resulting lack of forest cover means that evapotranspiration rates are likely to increase with increasing air temperature and may contribute to a lowering of the groundwater table and soil moisture content. This may prematurely dry up intermittent streams, depriving flora and fauna of an important water source during the dry season. Intermittent streams also provide important primary habitat for a number of amphibians and other species, including species that do not tend to utilize larger streams as frequently.¹⁹ Equally important, roading, logging, and other operations within and adjacent to intermittent streams is likely to lead to significant amounts of erosion and sediment loading in downstream channels, including areas needed for salmon spawning and other functions.

The HCP/CCA also fails to provide habitat conditions associated specifically with torrent salamanders. Torrent salamanders require stable soils and microclimates (i.e., cold water, and rocky or gravelly substrate without fine sediment) which are created and maintained in mature to old-growth forests (Nordstrom, 1997). Torrent salamanders are associated primarily with old-growth forest (>250 years) more often than mature, young, or clear-cut forests (Grialou et al., 2000; Bury et al. 1991; Carey, 1989; Bury and Corn, 1988b; Mierza, 1988; Bury, 1983). Carey (1989) found the abundance of torrent salamanders in old-growth forest streams ten times greater than

Response to Comment G3-46

See Master Response 18. Further, uniformly, studies ranging in focus from agriculture to forest hydrology indicate that the removal of vegetation reduces evapotranspiration and increases soil moisture (AHCP/CCAA Section 5.2).

Response to Comment G3-47

There are a variety of functions performed by riparian zones and that a mix of conifer and deciduous trees provides for a fully functioning riparian system. It is acknowledged that conifers are particularly important to provide large and long-lasting LWD. This function of the riparian zone is addressed by the “likely to recruit” language (see AHCP/CCAA Section 6.2.1.2.5). In addition, AHCP/CCAA Sections 6.2.1.2.3 and 6.3.1.1.1 identify the minimum conifer retention standards, which preclude harvesting conifers when the stand is predominately made up of deciduous trees. See Master Response 5 regarding “likelihood to recruit.”

Response to Comment G3-48

Green Diamond is seeking take authorization under ESA Section 10(a). By definition, this Section does not impose a “no take” standard. Instead, it provides authority for the Services to authorize incidental take and thereby grant an exception to the take prohibition in ESA Section 9 and applicable regulations when the Services determine that the applicant’s proposal meets the ESA approval criteria.

As discussed in the response to Comment G3-26 and elsewhere, the ESA benchmark for an adequate HCP is that the conservation program minimizes and mitigates any impacts of take to the maximum extent practicable, not that its riparian protection measures meet or exceed those contained in other sources of restrictions on a measure-for-measure basis. The CFPRs are discussed in Master Response 7. Here, implementation of the Operating Conservation Program as a whole satisfies the ITP requirement to minimize and mitigate the effects of taking to the maximum extent practicable.

Response to Comment G3-49

As discussed in the response to Comment G3-26 and elsewhere, the ESA benchmark for an adequate HCP is that its conservation program minimize and mitigate any impacts of take to the maximum extent practicable, not that its measures for seeps, springs and other important riparian areas meet or exceed other sources of restrictions on a measure-for-measure basis. Here, implementation of the Operating Conservation Program as a whole

in streams in closed canopy managed stands. As discussed elsewhere, the HCP/CCA fails to provide old growth forests, and in most cases, allows larger and older trees to be logged from the HCP/CCA’s riparian buffers.²⁰

As indicated by Table 2.7-1 in the draft EIS, the HCP/CCA’s riparian zone measures are not substantially different than those currently required by the California Forest Practice Rules (CFPRs), i.e., the “no action” alternative. As noted in the listing decisions for the covered fish species and various other documents, the CFPRs are quite insufficient to avoid “take” of the covered fish species, and are thus incompatible with the species’ survival and recovery. HCP/CCA mitigation measures which closely resemble the CFPRs are also unlikely to be sufficient for the covered species’ survival, much less recovery.

The HCP/CCA’s measures for seeps, springs, and other important riparian areas are also likely to be quite inadequate. USDA FS et al (1993) and USDA FS et al (1994) recommend no-harvest buffers of 1 to 2 site potential trees (i.e., roughly 170 ft. to 340 ft.) around different types of non-stream riparian areas.²¹

To its credit, the HCP/CCA does begin to recognize the need to protect headwall swales and some other special areas. Whether the measures for these areas are sufficient is another question.

As discussed above, the HCP/CCA and Implementation Agreement incorrectly assume that any forestlands which may be purchased by Simpson and subsequently included in the HCP/CCA and “take” permits will be in an equally degraded condition as Simpson’s existing forestlands. In fact, Simpson could purchase forestlands from non-industrial private forestland owners or other landowners who have managed their lands in a more balanced fashion and retained better quality habitats for the covered species. Inclusion of such properties in the HCP/CCA and “take” permits would allow significant, unmitigated impacts to habitats for the covered species, and would thus negatively impact those species and their chances of survival and recovery.

The HCP/CCA also fails to minimize and mitigate direct and indirect impacts to the covered species, their habitats, food sources, etc., from the application of herbicides and other chemicals. Section 2.4.3 of the HCP/CCA indicates that Simpson is not seeking a “take” permit for chemical applications; however, the HCP/CCA and its mitigation measures do not preclude Simpson from applying herbicides and other chemicals. While we would applaud Simpson if indeed the company planned to rely solely on non-chemical means of vegetation control, we suspect this is not Simpson’s intention. In fact, the draft EIS specifically indicates that Simpson *will* be using herbicides for vegetation control.

Because Simpson’s likely chemical applications will occur in the same areas covered by the “take” permits, and will likely impact the species and habitats covered by the permits, it will be difficult to distinguish between effects on the covered species’

satisfies the ITP requirement to minimize and mitigate the effects of take to the maximum extent practicable.

Response to Comment G3-50

Comment noted.

Response to Comment G3-51

See response to Comment G3-11.

Response to Comment G3-52

Consideration of the direct and indirect, individual and cumulative effects of herbicide use is addressed in Master Response 4.

Response to Comment G3-53

See response to Comment G3-6.

The Operating Conservation Program (AHCP/CCAA Section 6.2) is designed to address impacts of take in both younger and older forest stands. The measures are designed to satisfy the approval criteria for the Plan as a whole. The commenter gives no rationale for the assertion that impacts would be different in older forest stands with regard to the covered species.

Response to Comment G3-54

With the exception of cable rows that may be cut during commercial thinning, the riparian conservation measures only allow for a single entry into the riparian zones (see AHCP/CCAA Sections 6.2.1 and 6.3.1). During the time of entry at least 70 percent overstory canopy will be retained even in the outer zones. This is equivalent to a light commercial thinning that does not change the character of the forest, but rather stimulates the remaining trees to grow and achieve mature or old growth characteristics. As shown in Figure 7-2 of the AHCP/CCAA, the amount of older forest will increase so that by the end of the Plan period, the riparian stands will be composed of approximately 2/3 51-100 and 1/3 100+ year old stands.

Response to Comment G3-55

AHCP/CCAA Section 1.4.3 notes that the term of Green Diamond's NSO HCP is 30 years. The measures in the Plan that the Services expect primarily to benefit the covered amphibian species do not rely on the continuation of the NSO HCP to be successful.

populations and habitats resulting from the covered activities versus effects resulting from chemical applications. Thus it will be inappropriate and arbitrary to overlook mitigation measures needed for chemical applications. Amphibians are known to be especially sensitive to chemicals; it would be arbitrary and capricious to overlook likely impacts to tailed frog and Southern torrent salamander.

As noted below, the HCP/CCA may also fail to mitigate impacts to older forest stands found in the plan area, leading to additional significant, unmitigated impacts on the covered species' chances of survival and recovery.

Requirements:

Sierra Club et al v. Bruce Babbitt et al recently held that replacement habitat must be provided for habitat destroyed pursuant to ITPs.²²

Comments:

Table 2-2 of the HCP/CCA indicates that the plan area currently includes 11,921 acres of timber stands over 100 years old, and 18,729 acres between 81 and 100 years old. Since not even the HCP/CCA's riparian management zone prescriptions preclude the logging of larger and older trees, it is likely that all or most of these older forest stands will be logged under the HCP/CCA. Moreover, since all of the covered species and particularly tailed frog are known to be more abundant and successful in watersheds characterized by older, mature forest conditions, the logging of these older forest stands will significantly impact the covered species. Nevertheless, the HCP/CCA fails to provide any impact minimization or mitigation measures for the logging of these older forest stands. No replacement habitats are required.

If these older forest stands are protected under Simpson's existing HCP for Northern spotted owl, the extent and duration of this protection should be clearly indicated in the proposed HCP/CCA. Otherwise, it should be assumed that these stands will be clearcut. However, even if these older forest stands are protected to some extent under Simpson's existing HCP, they should also be protected by the proposed HCP/CCA, since Simpson could choose to terminate its existing HCP at any time, and since failure to protect these older forest stands will likely impact the species covered by the proposed HCP/CCA.

Requirement:

Adverse modification of any listed species' critical habitat must be avoided.

Response to Comment G3-56

See response to Comment G3-45.

Response to Comment G3-57

See response to Comment G3-42 regarding seeps and springs.

The Services believe that the measures included in the Operating Conservation Program (AHCP/CCAA Section 6.2) are adequate to address the biological needs of the covered amphibian species if these species actually were listed under the ESA.

There is no evidence provided by the commenter suggesting that invertebrates will decrease as the result of the Permit approval and implementation of Plan measures. The Services are not aware of any food habit studies carried out in the region, thus, at the present time any assessment of foraging ecology for these covered amphibians is highly conjectural.

Response to Comment G3-58

As discussed in response to Comment G3-15, this is a prescription-based Plan in which the biological goals and objectives guide the development of specific measures that are included in the operating conservation program (see Master Response 12). Further, monitoring and adaptive management together form a key component of the Plan's science-based approach to management. The Plan proposes a wide variety of monitoring projects to evaluate the implementation and the overall effectiveness of the Operating Conservation Program and to allow for changes to the Plan as necessary through its adaptive management measures (see AHCP/CCAA Sections 6.2.5 and

Comments:

The HCP/CCA allows substantial impacts to riparian and aquatic habitats along smaller and intermittent stream sections which are part of the designated critical habitat for the covered salmonid species.

Requirement:

Any unlisted species "covered" by the conservation plans and any regulatory assurances must be addressed and conserved as thoroughly and specifically as if they were listed, as was expected by Congress when ESA section. 10 was drafted, and as is required by the "No Surprises" rule.

Comments:

The HCP/CCA fails to provide mitigation measures for important habitat areas for the amphibians covered by the HCP/CCA. For example, the HCP/CCA's mitigation measures fail to consistently protect seeps and springs, despite their importance to Southern torrent salamanders. Seeps and springs which would normally provide habitat for amphibians, but which are not currently utilized by aquatic species due to historical or current forest management impacts, are not classified as class II waters, and do not receive buffer zones and protective measures. The HCP/CCA also fails to provide mitigation measures for terrestrial and aquatic invertebrates that provide important food sources for the covered amphibians. The HCP/CCA's mitigation measures are also heavily geared to lower stream reaches. However, as noted in the HCP/CCA's discussion of the species' habitat requirements, and in our preceding comments, upper stream reaches are often equally or more important to amphibians.

Adequacy of Implementation Measures -- Monitoring

Requirements:

According to the Services' HCP Handbook, "monitoring is a mandatory element of all HCPs."²³ The Services' HCP Handbook states that an HCP's monitoring provisions should be as specific as possible and be commensurate with the project's scope and the severity of its effects.²⁴ The Handbook also states that "the scope of the monitoring program should be commensurate with the scope and duration of the operating conservation program and the project impacts."²⁵

Comments:

The HCP/CCA's monitoring protocol are designed around the plan's biological goals and objectives -- which are themselves fundamentally oversimplified and inadequate,

6.2.6). Implementation monitoring projects will focus on evaluating and documenting Green Diamond's implementation of and compliance with this Plan, have been described in Section 6.3.7 and have been set forth in Section 6.2.7. Effectiveness monitoring would focus on measuring the success of both individual and collective conservation measures (see AHCP/CCAA Sections 6.2.5 and 6.3.5, and Appendix D of the Plan).

Response to Comment G3-59

The provisions set forth in AHCP/CCAA Section 6.2.6 establish a framework to address uncertainty associated with Plan implementation over the term of the Plan and Permits.

The commenter is correct in that IA section 6.5 provides for an extension beyond the initial Permit term.

Response to Comment G3-60

Regarding the quantification of incidental take, see Master Response 9.

Although the Permits allow incidental take of the covered species, the Plan was designed to minimize and mitigate the impacts of incidental take on the ITP species and it is expected that take will be minimal. There is no monitoring tool that would allow one to effectively monitor an event that is spatially and temporally highly disjunct. However, the effectiveness monitoring measures (AHCP/CCAA Section 6.2.5) are designed to monitor population levels and habitat of the covered species. The commenter correctly notes that the monitoring provisions include monitoring of habitat conditions. In fact, all relevant habitat variables will be monitored that are known to be influenced by the covered activities (see AHCP/CCAA Section 2) and have a potential to result in a significant negative impact on the covered species. For this reason, the Services believe that the provisions of the Plan's monitoring program (see also AHCP/CCAA Section 6.2.7 Implementation Monitoring Measures), are consistent with the HCP Handbook's recommendations for monitoring.

G3-58

as discussed above. Thus the monitoring requirements are equally inadequate, and must -- along with the plan's goals and objectives -- be supplemented substantially.

G3-59

The plan's monitoring requirements are also not commensurate with the very long duration of the HCP/CCA. The plan's initial duration is for half a century. The plan can also be extended for indefinite periods of time.

Requirements:

According to the Services' HCP Handbook, "the Services and the applicant must ensure that the monitoring program provides information to: (1) evaluate compliance; (2) determine if biological goals and objectives are being met; and (3) provide feedback information for an adaptive management strategy, if one is used."²⁶ The Handbook further states that "the monitoring program should reflect the measurable biological goals and objectives. The following components are essential.... (1) Assess the implementation and effectiveness of the HCP terms and conditions....; (2) determine the level of incidental take of the covered species; (3) determine the biological conditions resulting from the operating conservation program....; and (4) provide any information needed to implement an adaptive management strategy, if utilized."²⁷

Population levels and specific habitat components for each of the covered species must be monitored on a regular basis. According to the Services' HCP Handbook, "effects and effectiveness monitoring includes, but is not limited to, the following: 1. Periodic accounting of incidental take that occurred in conjunction with the permitted activity; 2. Surveys to determine species status, appropriately measured for the particular operating conservation program (e.g., presence, density, or reproductive rates); 3. Assessments of habitat condition; 4. Progress reports on fulfillment of the operating conservation program (e.g., habitat acres acquired and/or restored); and 5. Evaluations of the operating conservation program and its progress toward its intended biological goals."²⁸

The Services' HCP Handbook states that monitoring must be sufficient to detect trends in species' populations.²⁹

Comments:

G3-60

The HCP/CCA's monitoring provisions are not sufficient to monitor the level of incidental take which will be occurring for each of the covered species. While the plan does include some monitoring of the species' populations over time, monitoring of habitat conditions fails to account for the full range of relevant and important habitat parameters, including food sources, water quality (in terms of chemical pollution), etc. Because impacts to habitat conditions may take some time to be reflected in population levels, yet will also often be lasting, it is important to monitor both population levels and habitat conditions.

Response to Comment G3-61

As discussed in response to Comment G3-58, effectiveness monitoring efforts would measure the success of both individual and collective conservation measures, have been set forth in AHCP/CCAA Section 6.2.5, and have been described in Section 6.3.5 and Appendix D of the Plan. As discussed in response to Comment G3- 15, Comment G3-58 and others, in a prescription-based plan such as this one, the biological goals and objectives guide the development of specific measures that have been included in the Operating Conservation Program (see Master Response 12). In turn, the Plan as a whole must meet the ESA section 10 issuance criteria for ITPs and ESPs which are listed in EIS section 1.3, AHCP/CCAA Section 1.4.1 and Master Response 8. Further, the ESA does not require that ITPs recover species.

Response to Comment G3-62

The Services believe that implementation of the Operating Conservation Program as a whole, including the stream temperature monitoring provisions, will result in improved habitat conditions in the Plan Area over the term of the Plan and Permits.

The methods used for monitoring temperatures are adequate for monitoring whether the Plan conservation measures relating to stream temperatures are effective. AHCP/CCAA Section 6.2.5.5 states that the “red-light” thresholds for property-wide temperature monitoring has a maximum criterion of 17.4°C as established for Class I and II watersheds under 10,000 acres. As stated in AHCP/CCAA Section 4.4.1.1, of the 400 Class I temperature profiles developed within Green Diamond’s ownership since 1994, 93.8percent were or are at or below the 17.4°C threshold. This

G3-61

The HCP/CCA’s effectiveness monitoring provisions are not designed to assess whether the plan is providing for the recovery of each of the covered species. Similarly, the plan’s provisions are not designed to assess whether impacts to each of the species’ recovery opportunities are being prevented. Thus the plan’s effectiveness monitoring provisions are fundamentally flawed and inadequate.

G3-62

With one exception, the plan’s stream temperature monitoring requirements do not monitor absolute temperatures, nor do they measure temperatures relative to conditions associated with the recovery of the covered fish and amphibian species. Instead, they typically monitor temperatures relative to watershed size or to existing conditions -- conditions which are often already heavily degraded and not sufficient for the species’ survival, much less recovery. Thus potential monitoring results showing that stream temperatures are not worsened by Simpson’s activities under the HCP/CCA and “take” permits will not be sufficient to determine that the species’ continued survival is not being jeopardized, or that the species’ chances of recovery are not being compromised. As indicated in Appendix C of the HCP/CCA, current stream temperatures at a significant number of sites are already well above those temperatures which, according to HCP/CCA section 3.3.2.2.1, comprise healthy habitats for tailed frogs and Southern torrent salamanders.

G3-63

In the one case where the temperature monitoring references an absolute temperature (17.4° Celsius), this temperature is significantly above the range used by tailed frogs and Southern torrent salamanders (2° to 15.5° Celsius and 10° to 16° Celsius for tailed frogs and Southern torrent salamanders, respectively, as indicated by HCP/CCA section 3.3.2.2.1) and is well above the average temperature used by Southern torrent salamander (12.5° Celsius, according to Simpson and HCP/CCA section 3.3.2.2.1).

G3-64

Similarly, the population monitoring provisions for the covered amphibians are also fundamentally flawed in that they do not monitor post-logging population levels relative to population levels associated with the species’ recovery. Instead, the populations are monitored relative to populations which are likely to be significantly impacted or depressed. Specifically, the populations are monitored relative to those found in relatively young, intensively-managed second-growth timber stands which have been, and will be, heavily affected by logging, equipment operation, chemical applications, and other industrial forestry practices. Appendix D.1.6 indicates that the “control” areas will merely be forest units not scheduled for timber harvest -- meaning they are likely to be ones which have been recently logged. The fact that tailed frogs are known to be associated with old growth habitats, and that Southern torrent salamanders are known to be heavily impacted by logging and overstory removal (as is noted in HCP/CCA Appendix D.1.6) makes such areas particularly inappropriate as control sites. It should not be assumed that populations in the control areas are not impacted or depressed, or that they correspond to populations associated with the species’ survival or recovery.

threshold (MWAT) was developed from the National Marine Fisheries Service's (1997) Aquatic Properly Functioning Condition Matrix. However, Green Diamond believed that the MWAT threshold failed to account for natural variation in water temperatures due to geology, climate, and drainage area. As such, the MWAT was not considered the most protective and appropriate metric for measuring water temperature effects on aquatic life. As stated in AHCP/CCAA Section 5.5.2, for water temperatures less than lethal, the impacts of elevated temperature to aquatic life tends to be cumulative and therefore short-term increases, as measured by the absolute maximum temperature, are less likely to be harmful than chronic, long-term increases as measured by the 7DMAVG temperature. Therefore, as described in the Plan, "red and yellow light" threshold criteria were developed to adequately monitor and provide protection to covered species.

The Services believe that the proposed monitoring program's temperature criterion, which are based on watershed area, is sufficient to contribute to the Operating Conservation Program's ability to meet the ESA Permit issuance criteria discussed in Master Response 8 and to avoid jeopardy under ESA Section 7. As stated in AHCP/CCAA Section 3.3.1.3.1, to develop the temperature monitoring threshold values, 7DMAVG temperatures from monitoring studies conducted since 1994 was regressed on the square root of drainage area at locations known to support populations of the two covered amphibians and coho salmon species (the most temperature sensitive of the covered activities). This regression relationship is the basis of the "red and yellow light" temperature threshold criterion proposed for monitoring and it provides for variability in watershed characteristics as discussed above and not on an absolute maximal temperature or a temperature threshold value from the literature. Evidence from data collected indicates that existing water temperature conditions currently allow for the survival and reproduction of the covered species presently occurring in the streams being monitored. Using that temperature monitoring data to set monitoring criteria at a level intended to insure that future temperatures do not exceed current ones will ensure that habitat water temperatures remain at conditions suitable to covered species. Finally, given the "red and yellow light" monitoring threshold criteria, the Services believe that habitat conditions will likely improve in the Plan Area over the term of

the Plan and Permits.

Response to Comment G3-63

See response to Comment G3-62.

Response to Comment G3-64

The commenter seems to assume that the covered amphibian species are imperiled in the Plan Area. Furthermore, the commenter's presumption is that more robust amphibian populations exist, and that Plan Area populations should be compared to these more robust populations. To the contrary, the covered amphibians are both widespread and locally abundant in the Plan Area. Studies done by Diller and Wallace (1996 and 1999) and recent surveys conducted by Green Diamond biological staff, all of which are set forth in the Plan, indicate that portions of some stream reaches are likely to have reduced populations of the amphibian covered species relative to pre-disturbance conditions. However, these amphibians are not imperiled in the Plan Area and have persisted through extensive unregulated logging in the past when headwater streams were provided no specific protection. The Plan is expected to provide benefits to these species.

The criticism of using populations in a managed landscape as controls seems to result from a misunderstanding of the objectives of the monitoring or the experimental design of a before-after-control-impact (BACI) study. To clarify, the objective of the study is to determine if current timber operations have any effect on existing populations of the covered amphibians. Even if the control populations were declining, which the Services do not believe is likely based on information presented in the Plan, such populations still could be effective as experimental controls. The criterion that is necessary for a site to be used as a treatment control is that it not receive any treatment effects while having similar environmental covariates or nuisance variables (e.g. aspect, elevation, geology, climate and etc.) as does the treatment site.

Response to Comment G3-65

No specific dates are listed for the initiation of any of the proposed monitoring action, because they would be dependent on when the Permits are approved. However, we recognize that much of the monitoring program has been in progress since before the draft Plan was circulated. See AHCP/CCAA Appendix C11 regarding the headwaters amphibian monitoring effort that was initiated in 1997. Each of the specific monitoring techniques require different times of year for their implementation (e.g. tailed frogs - summer, torrent salamanders - fall, adult salmonid - winter and etc.). Further, water temperature monitoring will occur property-wide each summer (AHCP/CCAA Section 6.2.1.5.) The specifics of when the monitoring will be conducted is provided in the protocols for each monitoring technique (AHCP/CCAA Appendix D).

Response to Comment G3-66

The Plan proposes a wide variety of monitoring efforts to evaluate the implementation and the overall effectiveness of the Operating Conservation Program. The various timeframes and frequencies associated with them have been addressed. For example, turbidity monitoring “will occur continuously throughout each winter” (AHCP/CCAA Section 6.3.5.2.4). Summer water temperature monitoring and summer juvenile salmonid population monitoring both will occur annually during the summer months (AHCP/CCAA Sections 6.2.5.2.1, 6.2.5.2.10, 6.3.5.2.2). Out-migrant trapping monitoring also is an annual seasonal occurrence - it will occur each year after the winter (AHCP/CCAA Section 6.2.5.2.11). The interval between periods of spawning substrate permeability monitoring “is likely to be one to two years”

G3-64

G3-65

G3-66

G3-67

G3-68

Cascade or Columbia torrent salamanders are rarely found in forests logged 15 years prior (Nordstrom, 1997). Recolonization is difficult because torrent salamander are incapable of long-distance terrestrial movement (Grialou et al., 2000; Nussbaum et al., 1983) and are unlikely to wander far from aquatic habitat because of their extreme sensitivity to desiccation (Bury and Corn, 1988; Nordstrom, 1997).³⁰

The amphibian monitoring provisions also do not indicate when monitoring will occur.

Requirements:

The Services’ HCP Handbook states that monitoring protocol must specify the frequency, timing, and duration of data collection; must specify how the data will be analyzed; and must specify who will do the analysis.³¹ The Handbook also states that “the monitoring program will be based on sound science. Standard survey or other previously established monitoring protocols should be used [and] [m]onitoring programs should use a multi-species approach when appropriate.”³²

Comments:

In some cases, the HCP/CCA fails to specify timeframes and frequency for monitoring.

As discussed above, the HCP/CCA’s monitoring provisions are also sometimes based on faulty assumptions, and are not sufficient to determine if the plan is adequately mitigating impacts to the covered species’ chances of survival, much less recovery. Thus the plan is not consistently and sufficiently based upon sound science.

Requirements:

According to the Services’ HCP Handbook, “the Services should verify adherence to the terms and conditions of the incidental take permit, HCP, IA, and any other related agreements....”³³ The Handbook also states that “...it is important for the Services to make field visits to verify the accuracy of monitoring submitted by the permittees.”³⁴ The USFWS regulations also state that by being granted an ITP, the landowner has agreed to grant access to Service staff to property, records, and other areas.³⁵ This should be reflected in the HCP and Implementation Agreement.

Comments:

The HCP/CCA’s requirements for compliance monitoring are highly inadequate. The provisions fail to address or establish schedules or indicators for the Services to verify Simpson’s on-the-ground compliance with each of the HCP/CCA’s terms. The requirements for the content of compliance monitoring reports are also extremely cursory and non-specific.

(AHCP/CCAA Section 6.3.5.2.3). Tailed frog monitoring will occur annually “during the summer survey season immediately following [a winter high flow event]” and southern torrent salamander monitoring will take place during the first survey season following a natural or anthropogenic catastrophic event (AHCP/CCAA Sections 6.3.5.2.6, 6.3.5.2.7). Long-term habitat assessment monitoring and LWD monitoring, respectively, will occur at ten-year intervals, beginning 2004-2005 (AHCP/CCAA Sections 6.2.5.2.8, 6.2.5.2.9).

Response to Comment G3-67

The mitigation and monitoring measures are based on best science, which necessarily entails reliance on certain assumptions. The assumptions used in the development of the monitoring provisions will be tested through implementation over the term of the Plan and Permits. As the science develops and test results become available, the adaptive management program provides a mechanism to implement changes to the Operating Conservation Program as necessary (see IA paragraph 10.0 and AHCP/CCAA Sections 6.2.6 and 6.3.6). As discussed in Master Response 12, the role of biological goals and objectives in a prescription-based HCP like this one is to guide the development of the Operating Conservation Program’s prescriptions. Where the Plan’s adaptive management provisions are triggered in the future, the applicable goals and objectives also will guide the development of any changes to the Operating Conservation Program’s management practices and measures.

Response to Comment G3-68

Paragraph 8.5 of the IA memorializes the Services’ authority to conduct inspections and monitoring in connection with the Permits in accordance with Federal regulations. This paragraph also alludes to the Federal regulations regarding permittee consent for the Services to access property, records and other areas: “Green Diamond consents to and shall allow entry at any reasonable hour by agents or employees of the Services in the Plan Area where covered activities are conducted and premises where records relating to such covered activities are kept” (IA paragraph 8.5).

On the ground compliance reviews by the Services are limited only by workload and budgetary constraints. There will be annual reviews for the first five years of the Plan. In the second and fourth years, the annual meeting will be followed with a field review of implemented conservation measures to allow technical evaluation of conservation measure implementation (AHCP/CCAA Sections 6.2.7.4 and 6.3.7; IA paragraph 8.5). Biennial reports notwithstanding, the Services may request any additional available information reasonably related to implementation of the Plan in its possession or control, or in the possession or control of any of its affiliates, contractors or other third parties covered by the Permits for the purpose of assessing whether the terms and conditions of the Permits and the Plan, including the Plan’s adaptive management plan, are being fully implemented. Green Diamond is required to use its “best efforts” to provide any such information within 30 days of the request (IA paragraph 8.3)

Response to Comment G3-69

Green Diamond's compliance with the Plan, Permits and IA will be monitored and enforced in accordance with the provisions discussed above in response to Comment G3-68 and applicable Federal regulations. Remedies, enforcement and penalties have been addressed in IA paragraph 13. Nothing in the IA is intended to limit the authority of the United States government to seek civil or criminal penalties or otherwise fulfill its enforcement responsibilities under the ESA or other applicable law (IA paragraph 13.4). Injunctive and temporary relief are available (IA paragraph 13.3), as are stipulated penalties under certain circumstances (IA paragraph 13.5). Plan enforceability also has been discussed in Master Response 14.

Response to Comment G3-70

As stated in response to Comment G3-69, Green Diamond's compliance with the Plan, Permits and IA will be monitored and enforced in accordance with applicable law.

Response to Comment G3-71

The HCP Handbook suggests that an oversight committee of experts may, but is not required to, periodically review an HCP's monitoring program. Nevertheless, in this Plan, monitoring results can trigger convention of a scientific review panel, consisting of three independent experts, to provide technical analysis of data and any other relevant and available information, and thereby to assist in the development of a course of action to address adverse conditions (AHCP/CCAA Section 6.2.6.1.2).

G3-69

The Implementation Agreement also fails to require the Services to conduct on-the-ground verification of Simpson's compliance with the HCP/CCA's terms.

G3-70

The HCP/CCA and Implementation Agreement fail to require the Services to verify the accuracy of Simpson's effectiveness monitoring claims.

Requirements:

According to the Services' HCP Handbook, "for large-scale or regional HCPs, oversight committees, made up of representatives from significantly affected entities (e.g., State Fish and Wildlife agencies), are often used to ensure proper and periodic review of the monitoring program...."³⁶ According to the Handbook, "...oversight committees should periodically evaluate the permittee's implementation of the HCP, its incidental take permit, and IA and the success of the operating conservation program in reaching its identified biological goals and objectives. Such committees usually include species experts and representatives of the permittee, the Services, and other affected agencies and entities."³⁷ Further, "oversight committees should meet at least annually and review implementation of the monitoring program and filing of reports as defined in the HCP, permit, and/or IA, if one is used."³⁸

Comments:

G3-71

The HCP/CCA fails to meet these requirements. Simpson's HCP/CCA covers nearly half a million acres, and is clearly "large-scale." Nevertheless, the HCP/CCA fails to establish oversight committees for the plan's monitoring program.

Adequacy of Implementation Measures -- Adaptive Management

General Comments on Adaptive Management:

G3-72

The HCP/CCA's adaptive management provisions are extremely narrow and constrained. Indeed, adaptive management is completely non-existent for many plan objectives and elements. Many adaptive management-related provisions are actually designed to limit or preclude changes and improvements to the HCP/CCA, rather than facilitate them. The plan's adaptive management triggers are also fundamentally flawed. The process for making adaptive management decisions is also unduly controlled by Simpson. In short, the HCP/CCA fails to include necessary, effective, and credible adaptive management provisions.

Requirements:

Adaptive management should be required when any biological goal has not been met. The goal of adaptive management should be to identify concrete improvements to the HCP's conservation measures which may (or may not) be needed to address problems in meeting

Response to Comment G3-72

The ESA does not require inclusion of adaptive management provisions. However, in accordance with guidance provided in the Addendum to the HCP Handbook (which addendum also known as the “Five Points Policy”), Green Diamond has elected to incorporate them in the Plan to address uncertainty about the effectiveness of some of the conservation measures.

Response to Comment G3-73

The adaptive management program is provided as a mechanism to revise the Operating Conservation Program as monitoring results determine is necessary. The Adaptive Management Program and its triggers have been set forth in AHCP/CCAA Section 6.2.6. Further, if the Services believe that one or more of the adaptive management provisions in the Plan have been triggered and that Green Diamond has not changed its management practices accordingly, the Services will notify Green Diamond. Within 30 days of such notification, Green Diamond is required to initiate the adaptive management changes set forth in the adaptive management program and to report to the Services on what actions have been taken (IA paragraph 10.2).

Response to Comment G3-74

As discussed in response to Comment G3-66, monitoring events will occur at appropriate intervals. If the results of these efforts indicate that one or more revisions of the Operating Conservation Program (AHCP/CCAA Section 6.2) is/are necessary, the adaptive management measures (AHCP/CCAA Section 6.2.6) provides a mechanism to do so. Green Diamond will initiate reviews and implement such measures in response to the triggers or in response to receipt of notification by the Services pursuant to IA paragraph 10.2. Pursuant to this paragraph, if the Services believe that one or more of the adaptive management provisions in the Plan have been triggered and that Green Diamond has not changed its management practices accordingly, the Services would notify Green Diamond. Within 30 days of such notification, Green Diamond would be required to initiate the adaptive management changes set forth in the adaptive management section of the

the HCP's biological goals, unforeseen implementation problems, changes in the permittee's land management practices, changing circumstances, etc.

The Service's HCP Handbook states that if new habitat is being created as mitigation, then the habitat must be created through techniques that are proven and reliable or, if relatively new, then those techniques must be augmented by contingency measures and adaptive management.³⁹

Comments:

G3-73

The HCP/CCA fails to establish adaptive management triggers (or "monitoring thresholds") and adaptive management responses for all aspects of Simpson's permitted activities which are likely to significantly affect the covered species. Given the significant gaps in Simpson's mitigation measures, as well as the HCP/CCA's extended duration, it will be important for monitoring and adaptive management to be comprehensive in scope, and not be limited to a subset of the HCP/CCA's already limited mitigation measures. Unfortunately, the HCP/CCA fails to even establish triggers and adaptive management requirements for all of the mitigation measures which are included in the HCP/CCA.

G3-74

The HCP/CCA also fails to require sufficient and necessary changes when and if the monitoring thresholds are reached. Reaching a "yellow light" threshold does not clearly require Simpson to modify or supplement the HCP/CCA's mitigation measures to ensure the plan fully mitigates impacts to the covered species' chances of survival and recovery. Rather, the HCP/CCA merely states that Simpson will make vague "appropriate" changes to the HCP/CCA. Similarly, while reaching a "red light" threshold triggers a more formal adaptive management process, the objectives for that process remain murky, and do not clearly require that the HCP/CCA's mitigation measures be modified or supplemented to fully mitigate impacts to the species' chances of survival and recovery.

G3-75

Instead of using a comprehensive adaptive management program to correct potential shortcomings and unforeseen outcomes with Simpson's management practices and the HCP/CCA's conservation measures, the HCP/CCA severely constrains changes to its mitigation measures which might occur as a result of adaptive management. In fact, section 6.2.6.2 of the HCP/CCA states that the only changes which can be made in response to adaptive management are changes to the plan's riparian zone management measures, steep slope management measures, and roads provisions. No changes are required or allowed in response to the monitoring thresholds for the covered amphibians. No other changes are required or allowed where they might be necessary to restore stream temperatures and other water quality parameters for the covered fish. No changes are required or allowed if necessary to address problems which may arise with Simpson's upslope management. Changes are not even required if Simpson chooses to use more intensive logging practices in the future.